United States Air Force 611th Air Support Group/ Civil Engineering Squadron

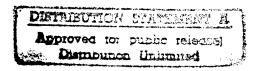
Elmendorf AFB, Alaska

Final

Remedial Investigation and Feasibility Study

Barter Island Radar Installation, Alaska

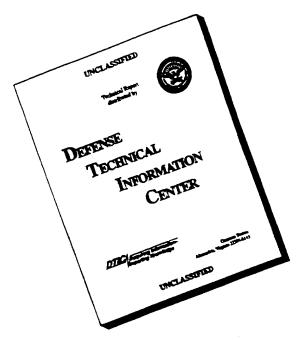
Volume 2 of 2 (Includes Appendices D through G)



APPENDIX D SAMPLE COLLECTION LOGS

19960808 094

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SAMPLE COLLECTION LOGS FOR THE OLD LANDFILL (LF01)

DATE: 8-21-93			SAMPI	LE ID: B	TR-LF	01-S01				
	Barter WEATHER: Sunny, breezy, 40°F									
SITE/AOC: Old Land	Ifill, LF01		FEET FR	OM FIXE	D POI	NT:	MAG	NETIC HEADIN	IG: _	
FIXED POINT: Head	of stream	draining ba	ase of be	ermed reta	aining	wall.				
SAMPLE MATRIX:	Soil (S)	☐ Se	diment (S	SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG,	JM		7							
TIME SAMPLED: 10:	00 (8/21),	10:40 (8/20	DEPTH	H OF SAN	MPLE I	(feet): <u>0-6"</u>				
SAMPLE DESCRIPTION	ON/COMM	ENTS: At	depth be	cause up	per se	diments are consta	ntly bei	ng reworked by	wav wav	e action, well
sorted sands, minor i									· · · · · · · · · · · · · · · · · · ·	
SAMPLING METHOD	: Dedicate	ed scoop a	ind hand	auger						· · · · · · · · · · · · · · · · · · ·
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)						ID				
☐ Ambient Condition	n Blank (A	B) 🗌 Re	plicate of	f Soil San	nple IC)				
			,	WATER F	PARAN	METERS				
TIME	PH	,	CONDUC	CTIVITY		TEMPERATURE	SPE	CIFIC GRAVIT	7 -	TURBIDITY
							1			
							 			
		<u>'</u>	M	IONITORI	ING R	EADINGS	<u> </u>			
			T			T	IINO		1	
TIME	PID READ	DING (ppm) co	3/LEL (%))	HANBY SCREEN (standard/ppm)	NING			
10:40	BZ = 0		0		<u></u>	NR				
10.40	BZ = 0					INN				
BG=Background; (BZ=Breath	ning Zone;	BH=Bore	ehole; NF	R=No	Readings; HS=Hea	adspace	e; S=Sample (uncor	ntained)
			✓ CHE	CK ANAI	LYSES	REQUESTED				
		<u> </u>						ANOUG	0400	- 1 AD
			BARROW	LAB				ANCHO	RAGE	: LAB
ANALYSES	1	(CONTAIN	NERS		ANALYSES	1	CONT	AINE	RS
		WA	TER	sc	DIL			WATER		SOIL
ТРН	1	1 liter		8 oz	<u>, </u>	VOC (8260)	1	3 x 40 ml		4 oz
PCB	1				l	SVOC (8270)	1	1 liter		8 oz
PESTICIDES					Ī	TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40 m	nl	4 oz	<u>z</u>	DISS METALS		1 liter		
VOC-BTEX 8020	J					TDS		250 ml		
						TSS		250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C DTIC QUALITY INSPECTED 2

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

MAGNETIC HEADING South'southwest Sunny, 40° F			S							
EXECUTION Discharge of culvert at southeast corner of LF01, at road intersection between LF01 and sewage lagoon SAMPLER SOII (S)										
SAMPLE MATRIX										
MAMPLERS PG, JM										e lagoon.
IME SAMPLED: 10:40 DEPTH OF SAMPLE (feet): AMPLED DESCRIPTION/COMMENTS: Upgradient sample for LF01, but also downgradient sample for sewage lagoon. Careft or potential pathogens. SAMPLING METHOD: Spade and scoop Deptiment Blank (EB)			Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLE DESCRIPTION/COMMENTS: Upgradient sample for LF01, but also downgradient sample for sewage lagoon. Careful pathogens.			<u> </u>	EPTH O	E SAMPLE	(feet):				
Or potential pathogens Spade and scoop Spade and scoop QA/QC Stra Volumes QA/QC Str							dient sa	mole for sewa	ge lag	oon. Carefu
SAMPLING METHOD: Spade and Scoop			ENTO: Opgrac	iiciii saii	ipio ioi Li o	1, but also downigra	2.0116 00	anpie ioi ceria	90 10.9	
CAVIC SAMPLES COLLECTED:			and scoop							
Trip Blank (TB)		<u> </u>		nent Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
Ambient Condition Blank (AB)										
TIME		n Blank (A								
TIME										
10:40 7.5 1,640 4°C 4°C	TIME	PH	CON	IDUCTI\	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
MONITORING READINGS	10:30	7.6	1,66	0		4°C			,	NR
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) ANALYSES SSASABLE (standard/ppm) ANALYSES SANALYSES REQUESTED ANALYSES REQUESTED<	10:40	0:40 7.5 1,640 4°C								
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) ANALYSES SSASABLE (standard/ppm) ANALYSES SANALYSES REQUESTED ANALYSES REQUESTED<										
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) ANALYSES SSASABLE (standard/ppm) ANALYSES SANALYSES REQUESTED ANALYSES REQUESTED<				MON	IITORING F	READINGS			-	
10:40 BZ = 0 NR Image: Red and section of the color	71.15	DID DEAL	OING (sees)			HANBY SCREET	NING			***
BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)			DING (ppm)		=L (%)					
BARROW LAB BARROW LAB ANALYSES ANAL	10:40	BZ = 0		0		NK				
BARROW LAB BARROW LAB ANALYSES ANAL		D7 D := 44	dan Zanas Bill	D	Jan N.D. N.	Desdieses NG Mar		. C. Comple	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	atainad)
BARROW LAB ANALYSES ANCHORAGE LAB CONTAINERS CONTAINERS WATER SOIL WATER SOIL TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml 4 oz PCB ✓ 1 liter 8 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml 4 oz TSS 250 ml TSS 250 ml TOC 500 ml 4 oz	BG=Background;	BZ=Breath					auspac	e, 5=5ample	(uncoi	italiieu)
ANALYSES			√	CHECK	ANALYSE	S REQUESTED				
WATER SOIL WATER SOIL TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml 4 oz PCB ✓ ✓ SVOC (8270) 1 liter 8 oz PESTICIDES ✓ 1 x 40 ml 4 oz DISS METALS 1 liter HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz			BAR	ROW LA	√B			ANCHO	RAGE	LAB
TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml 4 oz PCB ✓ SVOC (8270) 1 liter 8 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	ANALYSES	1	CON	NTAINEF	RS	ANALYSES	1	CON	TAINE	RS
PCB ✓ SVOC (8270) 1 liter 8 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz			WATER	}	SOIL			WATER		SOIL
PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	ТРН	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	PCB	1				SVOC (8270)		1 liter		8 oz
VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	PESTICIDES					TOTAL METALS		1 liter		8 oz
TSS 250 ml TOC 500 ml 4 oz	HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter		
TOC 500 ml 4 oz	VOC-BTEX 8020	1				TDS		250 ml	2	
						TSS		250 ml		
TCLP 2 liters 2 x 8 oz						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8-20-93</u>			SAMPLE	ID: BTR-LF	01-SD02				
	arter WEATHER: Sunny, clear, slight wind								
SITE/AOC: Old Land							GNETIC HEAD	DING:	
FIXED POINT: Sma	ıll pond wit	h sludge fror	n old land	lfill - may in	clude biological was	ste.		******	
SAMPLE MATRIX:] Soil (S)	Sedir	nent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG,</u>			W - 1				···	·····	
TIME SAMPLED: 11					` ' ———				
SAMPLE DESCRIPTION						drum/b	bl in small liquid	d filled	depression
Material appears to be				inor gravels	, high feed content.				
SAMPLING METHOD									
QA/QC SAMPLES CC									
	n Riank /Ai				e ID				
Ambient Condition	1 Dialik (Al	2) 🗀 rebiii	Cate of Sc	Sample II	J				
			WA	TER PARA	METERS				
TIME	PH	cc	ONDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	TURBIDITY
10:42	7.2	1,3	380		7°C	0.1			
11:05	7.5	1,1	180		3°C	0.1			
								\top	
						<u> </u>			
<u> </u>			MON	NITORING R	EADINGS		т		
	DID DEAF	2110 (nnm)	00"	/-/	HANBY SCREEN	IING			
TIME		DING (ppm)		EL (%)	(standard/ppm)			- -	
10:50	BZ = 0		0		NR			\bot	
BG=Background; E	3Z=Breath	ing Zone; Bh	- 1=Boreho	ole; NR=No	Readings; HS=Hea	 idspace	= e; S=Sample (uncor	ntained)
			-						
		İ	·		S REQUESTED				
		BA	RROW LA	/ B			ANCHO	RAGE	LAB
ANALYSES	1	cc	ONTAINER	RS	ANALYSES	1	CON	TAINE	RS
		WATE	ER .	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
		TOLF Z IIIers							
1		1			!	,	i		

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8-20-93			_SAMPLE	ID: BTR-LF	01-SD03					
RADAR STATION: B	N: Barter WEATHER: Sunny, warm, breezy									
SITE/AOC: Old Land	dfill, LF01		FEET FRO	OM FIXED P	OINT:	MA	GNETIC HEA	DING:		
FIXED POINT: Stre										
SAMPLE MATRIX: [☐ Soil (S)	Sed	iment (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>PG</u>	, RT									
TIME SAMPLED: 1										
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>Ligh</u>	nt brown, s	ilty sand and	d gravels, saturated	<u> </u>				
CAMPLING METHOE). Coodo o	nd sooon								
SAMPLING METHOD QA/QC SAMPLES C			inmont Pla	nk (EB)		tra Vol	umas			
☐ Trip Blank (TB)	OLLEGIED				BID					
☐ Ambient Condition										
Anibient Condition	T DIAITK (A	D) Lifep								
			WA	TER PARA	METERS	1				
TIME	PH	C	ONDUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	URBIDITY	
	_					 		_		
						<u></u>				
			MON	IITORING R	EADINGS					
					HANBY SCREEN	NING				
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)					
	L						<u> </u>			
BG=Background;	BZ=Breath	ing Zone; E	BH=Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)	
			✓ CHECK	ANALYSES	REQUESTED					
		B	ARROW LA	\R			ANCHO	RAGE	LAB	
				··· · · · · · · · · · · · · · · · · ·		;				
ANALYSES	/	C	ONTAINEF	rs	ANALYSES	/	CON	TAINE	no I	
		WAT	TER	SOIL			WATER		SOIL	
TPH	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
РСВ	1			•	SVOC (8270)	1	1 liter		8 oz	
PESTICIDES					TOTAL METALS	1	1 liter		8 oz	
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1	, ,, ,,			TDS		250 ml			
			<u> </u>		TSS		250 ml			
					TOC		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	
					I VEI			L	,	
	I			1						

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 8-20-93		s	AMPLE	ID: <u>BTR-LF</u>	01-SW01				
RADAR STATION: Barter WEATHER: Sunny, breezy, 40°F BITE/AOC: Old Landfill, LF01 FEET FROM FIXED POINT: 0 MAGNETIC HEADING: 240°									
SITE/AOC: Old Land	dfill, LF01	F	EET FRO	OM FIXED I	POINT: 0	MA	GNETIC HEAD	DING:	240°
FIXED POINT: Nor	thwest end	of culvert at r	oad inter	section bet	ween LF01 and sew	age lag	joon.		
SAMPLE MATRIX: [☐ Soil (S)	☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG									
TIME SAMPLED: 10									
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>Upper (</u>	end of st	ream that pr	rovides head for grou	ındwate	er to pass throu	ugh the	e central area
of landfill.						-			
SAMPLING METHOD									
QA/QC SAMPLES C									
☐ Trip Blank (TB)	on Diamir (A				e ID				
Ambient Condition	on Blank (A	B) \square Replic	ate of Sc	oii Sampie i					
			WA	TER PARA	METERS	·			
TIME	PH	COI	NDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 7	TURBIDITY
10:30	7.6	1,66	0		4°C			1	NR
			MON	NITORING F	READINGS				
					HANBY SCREEN	NING			
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)			_ _	
10:30	BZ = 0		0		NR				
BG=Background;	BZ=Breath	ning Zone; BH:	=Boreho	ole: NR=No	Readings; HS=Hea	dspac	e: S=Sample	(uncor	ntained)
					S REQUESTED				,
					S REQUESTED		<u> </u>		
		BAF	ROW LA	AB			ANCHO	PRAGE	LAB
ANALYSES	1	COI	NTAINEF	RS	ANALYSES	1	CON	TAINE	RS
		WATE	3	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1				SVOC (8270)		1 liter		8 oz
PESTICIDES		1			TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ml	1	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1		1		TDS		250 ml		
			1		TSS		250 ml		
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
TOLI ZINGIS ZXXX							2 / 0 02		
ll .		I		1	1		1		1

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

ADAR STATION: Batter WEATHER: Sunny, clear, slight wind STEELOGY Old Landfill, LF01 FEET FROM FIXED POINT: MAGNETIC HEADING:	DATE: <u>8-20-93</u>			SAM	IPLE ID: _E	3TR-LF	01-SW02				***
SAMPLER SOI (S)											
SamPLE MATRIX Soil (S)	SITE/AOC: Old Lanc	ifill, LF01		_ FEET	T FROM F	IXED P	OINT:	M <i>A</i>	AGNETIC HEA	DING:	
SAMPLERS PG, DP	FIXED POINT: Sma	all pond/de	pression v	vith sluc	dge from d	old land	lfill, may include hu	man wa	aste.		·
DEPTH OF SAMPLE (feet): Surface Water	SAMPLE MATRIX:	Soil (S)	☐ Se	ediment	(SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLE DESCRIPTION/COMMENTS: May include human/biological waste. Crushed drum/bbl in small liquid filled depression deterial appears to be from LF01. SAMPLING METHOD: Bottle/bailer											
Material appears to be from LF01. Sottle/bailer Souther/bailer Sou									1.1.86		
SAMPLING METHOD: Sortie/baller				ay includ	<u>de human/</u>	biologic	cal waste. Crushed	drum/b	<u>bl in small liqui</u>	d filled	d depression
CAYOC SAMPLES COLLECTED:				····			A STATE OF THE STA				
Trip Blank (TB)					A Diamir /F						
Ambient Condition Blank (AB)		OLLEGIED									
TIME PH		n Blank (Al									
TIME	Ambient Conditio	T DIAIN (A	о) <u> </u>	piloate	01 3011 36	imple it					
11:05 7.5 1,180 3°C					WATER	PARAM	METERS				
Note	TIME	PH		CONDU	JCTIVITY		TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) Land Land Land Land Land Land Land Land	11:05	7.5		1,180			3°C				
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) Land Land Land Land Land Land Land Land											
TIME											
TIME	1				MONUTO		TADINGS			1	
TIME PID READING (ppm) CG/LE (%) (standard/ppm) Image: control of the properties o	<u> </u>				MONITOR		T.		1		
BG=Background; BZ=Breathing Zone; BH=Borehote; NR=No Readings; HS=Headspace; S=Sample (uncontained)	TIME	PID REAL	DING (ppm	n) (CG/LEL (%	6)		NING			
ANALYSES ANALYSES REQUESTED ANALYSES ANALYSE	111712		,,, c. (pp.,	,			(State of pp. 17)				
ANALYSES ANALYSES REQUESTED ANALYSES ANALYSE								·		\dashv	
ANALYSES ANALYSES REQUESTED ANALYSES ANALYSE	DO Daalassassas	D7 Duageh		DU D			Bandings, UC - Ups		o C-Comple	<u> </u>	atainad)
ANALYSES ANCHORAGE LAB ANALYSES ✓ CONTAINETS SOIL TPH ✓ 1 liter SOIL WATER SOIL 3 x 40 ml 4 oz 4 oz SVOC (8260) 1 liter 8 oz 8 oz PESTICIDES 1 liter 1 liter 8 oz 8 oz 8 oz PESTICIDES 1 liter 1 liter 8 oz 8 oz 1 liter 1 liter 8 oz 1 liter 8 oz 1 liter 1 liter <td< td=""><td>BG=Background;</td><td>BZ=Breath</td><td>ing Zone;</td><td>RH=R(</td><td>orenole; iv</td><td>H=NO</td><td>Readings; HS=Hea</td><td>uspaci</td><td>e, s=sample</td><td>(unico</td><td>itairieu)</td></td<>	BG=Background;	BZ=Breath	ing Zone;	RH=R(orenole; iv	H=NO	Readings; HS=Hea	uspaci	e, s=sample	(unico	itairieu)
ANALYSES				✓ CH	HECK ANA	ALYSES	REQUESTED				
WATER SOIL WATER SOIL TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml 4 oz PCB ✓ 1 liter 8 oz PESTICIDES I liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TDS 250 ml TDS 250 ml TDS 250 ml TDS 250 ml				BARRO	W LAB				ANCHO	RAGE	LAB
WATER SOIL WATER SOIL TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml 4 oz PCB ✓ 1 liter 8 oz PESTICIDES I liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TDS 250 ml TDS 250 ml TDS 250 ml TDS 250 ml	ANALYSES			CONTA	NERS		ANALYSES	1	CON	TAINE	RS
TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml 4 oz PCB ✓ SVOC (8270) 1 liter 8 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	7,10,12,102,0		10//	ATER	T	SOII			WATER		SOIL
PCB ✓ SVOC (8270) 1 liter 8 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 mi 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	TOU						VOC (8900)				<u> </u>
PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 Image: Control of the property o			i liter		180)Z			L		
HVOC 8010 VOC-BTEX 8020 VOC - BTEX 8020 VOC -		/									
VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	PESTICIDES						TOTAL METALS		1 liter		8 oz
TSS 250 ml TOC 500 ml 4 oz	HVOC 8010										
TOC 500 ml 4 oz	VOC-BTEX 8020	1					TDS		250 ml		
							TSS		250 ml		
TCLP 2 liters 2 x 8 oz							тос		500 ml		4 oz
							TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 8-20-93 SAMPLE ID: BTR-LF01-SW03									
RADAR STATION: Barter WEATHER: Sunny, warm, breezy									
SITE/AOC: Old Land								DING:	
FIXED POINT: Loca	ated in cha	nnel approxin	nately ea	st of center	of top row of seawa	all bags	S		
SAMPLE MATRIX: SAMPLERS: PG,		☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: _11			FPTH O	F SAMPLE	(feet): Surface Wat	er			
SAMPLE DESCRIPTION							ic and metallic	-like c	odor.
			<u> </u>	•					
SAMPLING METHOD	: Dedicate	ed scoop							
QA/QC SAMPLES CO	DLLECTED	: 🗌 Equip	ment Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)		☐ Duplic	ate of W	ater Sample	e ID				
☐ Ambient Condition	n Blank (Al								
			WA	TER PARAI	METERS				
TIME	PH	со	NDUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
11:48	7.1	400			8°C	0.98	}		
			MON	IITORING R	EADINGS				
					HANBY SCREEN	NING		[
TIME	PID READ	DING (ppm)	CG/Li	EL (%)	(standard/ppm)				
BG=Background; I	BZ=Breath	ing Zone; BH	=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			CHECK	ANALYSES	S REQUESTED				
		BAF	RROW LA	AB			ANCHO	RAGE	E LAB
ANALYSES		CO	NTAINEF	RS	ANALYSES	1	CON	TAINE	:BS
ANALIGES		WATE		SOIL	ANALISES	-	WATER		SOIL
ТРН	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ	1	·			SVOC (8270)	1	1 liter		8 oz
PESTICIDES					TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40 ml	1	4 oz	DISS METALS	1	1 liter		
VOC-BTEX 8020	1		1		TDS	1	250 ml		
					TSS	1	250 ml		
					тос	1	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8-20-93</u>			SA	MPLE I	D: BTR-LF	01-SW04				
RADAR STATION: Barter WEATHER: Sunny, cool, 40°F										
SITE/AOC: Old Land										
FIXED POINT: Sma	all pond no	rth of sew	age la	agoon,	north of So	utheast end of LF01	, east (of culvert samp	oled b	y SD01.
SAMPLE MATRIX: [SAMPLERS: DP,		☐ Se	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: <u>1</u>			חב	DTH O	E SAMPLE	(foot):				
SAMPLE DESCRIPTI								1 and constitu	ites ai	n upgradien
sample.	014/00141141		ino po	ona pio	VIGOO IICAA	to diffe federiate in	,,,			· · · · · · · · · · · · · · · · · · ·
SAMPLING METHOD	Dedicate	d beaker								
QA/QC SAMPLES C				ent Blai	nk (EB)	■ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)						e ID				
☐ Ambient Condition	n Blank (Al									
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	URBIDITY
14:50	6.2 1,380					7°C				
				MON	IITORING F	EADINGS				
TIME	PID READ	ING (ppn	n)	CG/LE	EL (%)	HANBY SCREEN (standard/ppm)	IING			
14:30	BZ = 0			0		NR				
BG=Background;	BZ=Breath	ing Zone;	BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample (uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
				ROW LA				ANCHO	RAGE	LAB
				TAINER		ANIALVOEC		CON	TAINE	RS.
ANALYSES	/	W	ATER		SOIL	ANALYSES	/	WATER	77 (11 12	SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml	····	4 oz
РСВ	/					SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40 r	ml	1	4 oz	DISS METALS	1	1 liter		
VOC-BTEX 8020	1		1		TDS	1	250 ml			
				.•		TSS	1	250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9-1-93</u>			SAM	IPLE I	D: BTR-LF	01-2SW01				
		SAMPLE ID: BTR-LF01-2SW01 arter WEATHER: Sunny, clear, warm, 45°F								
SITE/AOC: Old Land	Hill, LF01		FEET	T FRO		• • • • • • • • • • • • • • • • • • • •		GNETIC HEA	DING:	
FIXED POINT:										
SAMPLE MATRIX:] Soil (S)	☐ Se	ediment	(SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG,</u>										***************************************
TIME SAMPLED: 14										
SAMPLE DESCRIPTION	ON/COMM	ENTS: R	ecollect	due t	o technical	difficulties at Barrov	w lab.	Water is greer	and	opaque.
CAMPI INC METHOD										
SAMPLING METHOD				-+ Dlo-	- · /CD)		\/-1			
QA/QC SAMPLES CO Trip Blank (TB)	JLLEGIED									
☐ Ambient Condition	n Blank (A		oplicate	of So	iter Sample Semple II	e ID				
Anibient Condition	וומווע (עי	<i>D)</i> — пе	epiicate	01 30	II Sample ii	J				
				WA	TER PARA	METERS	· · · · · · · · · · · · · · · · · · ·			
TIME	PH		CONDL	JCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 1	TURBIDITY
14:45	7.8		1,370			4°C				
							+	 	\top	
				MON	ITORING R	EADINGS				
						HANBY SCREEN	NING			_
TIME	PID READ	DING (ppn	n) (CG/LE	L (%)	(standard/ppm)				
							<u></u>	1		
BC-Background: 1	P7-Breath	ing Zone:	L		ND-No	Deadings, US_Us		-: C. Comple		-+-:
BG=Background; E	3Z=Dieaui	ing zone,	ם=םנ	Sierioi	e; NH=NO	Headings; no=nea	iospace	3; 5=5ample (uncoi	ntaineuj
	 		✓ C⊦	HECK	ANALYSES	S REQUESTED				
		1	BARRO)W LA	.В			ANCHO	RAGE	ELAB
ANALYSES			CONTA		S	ANALYSES	,	CON	TAINE	RS
	1		ATER		SOIL	7117121323		WATER		SOIL
TOU	+,-		NICI.			. (0.0 (0.000)		l l		
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB		1				SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 n	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	020					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
1	,	1			1	1				

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-1-93</u>		S	AMPLE	ID: <u>BTR-LF</u>	01-2SW02				
RADAR STATION: Barter WEATHER: Sunny, clear, 45°F									
SITE/AOC: Old Land	Ifill, LF01	F	EET FRO	OM FIXED F	POINT:	MA	AGNETIC HEA	DING:	
FIXED POINT: 200	feet south	of main road	<u>in main d</u>	channel.					
SAMPLE MATRIX: SAMPLERS: PG,	, ,	☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: 15			PPTH O	F SAMPLE	(feet): Surface				
SAMPLE DESCRIPTION						at lab.			
SAMPLING METHOD	: Scoop								
QA/QC SAMPLES CO	OLLECTED	: 🗌 Equip	ment Bla	nk (EB)	☐ QA/QC E	tra Vol	umes		
☐ Trip Blank (TB)		☐ Duplic	ate of W	ater Sampl	e ID				
☐ Ambient Conditio	n Blank (Al	B) 🗌 Replic	ate of So	oil Sample I	D				
			WA	TER PARA	METERS				
TIME	PH	CO	NDUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry -	TURBIDITY
15:10	7.5	1,04	10		3°C				
			МОМ	NITORING P	READINGS				
TIME	PID REAL	DING (ppm)	CG/LI	EL (%)	HANBY SCREET (standard/ppm)	NING			
		(11.7)							
			-						
BG=Background;	BZ=Breath	ning Zone; BH	=Boreho	ole; NR=No	Readings; HS=He	adspac	e; S=Sample	(unco	ntained)
			CHECK	ANALYSE	S REQUESTED				
		BAF	RROW LA	 \В			ANCHO	ORAGE	E LAB
ANIALVEEC		CO	NTAINEF	 RS	ANALYSES	,	CON	ITAINE	RS
ANALYSES		WATE		SOIL	ANALISES		WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB		' '''.		0 02	SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	1	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020					TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9-1-93</u>	***************************************		SAMP	LE ID: <u>BTR-LF</u>	01-2SW03				
RADAR STATION: <u>B</u>	Barter WEATHER: Sunny, clear, 40°F								
SITE/AOC: Old Land					POINT:	MA	IGNÉTIC HEA	DING:	
FIXED POINT:									
SAMPLE MATRIX:			ediment (S	SD)	Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG,									
TIME SAMPLED: 15									
SAMPLE DESCRIPTION	ON/COMM	ENTS: Re	ecollect d	ue to technical	difficulties at lab.				
SAMPLING METHOD	. Scoon	***************************************	· · · · · · · · · · · · · · · · · · ·			······································			
QA/QC SAMPLES CO			nuinment	Blank (FR)		tra Vol	ımas		
					e ID				
☐ Ambient Conditio									
	<u>`</u>			WATER PARA					
TIME	PH				<u> </u>	Laps	OLEIO ODANIE		
	PH		CONDUC	VIIVII Y	TEMPERATURE	SPE	CIFIC GRAVIT	<u> </u>	URBIDITY
15:25			1,550		5°C				
	-			IONITODINO 5	25451100				
			<u>N</u>	ONITORING F	READINGS		1	1	
TINAT	חום מבגר	DINIC (non	~\	2/151 (0/)	HANBY SCREEN	NING			
TIME	PID REAL	DING (ppn	1) CC	G/LEL (%)	(standard/ppm)			_	
								_	
							ļ	1	
BG=Background;	BZ=Breath	ing Zone;	BH=Bor	ehole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
						•		•	
		·	J CHE	CK ANALYSE	S REQUESTED	i			
			BARROW	/ LAB]		ANCHO	RAGE	LAB
ANALYSES	1		CONTAIN	NERS	ANALYSES	1	CON	TAINE	RS
		W	ATER	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 n	ni	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	 				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-1-93</u>			SA	MPLE I	D: BTR-LF	01-2SW04				
	ION: Barter WEATHER: Sunny, warm, clear, 45°F									
SITE/AOC: Old Land	fill, LF01		FE	ET FRO	M FIXED F	POINT:	MA	GNETIC HEA	DING:	
FIXED POINT:										
SAMPLE MATRIX:			Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG				DTU O	CAMPIE	(feet): Surface Wat	or			
TIME SAMPLED: 15								en and onad	ue Co	allected from
		EN 15: <u>r</u>	recone	ct due t	o technicai	difficulties at lab. E	Jaik Git	seri and opaq	ue. O	medied from
ponded area adjacen SAMPLING METHOD										
QA/QC SAMPLES CO		· 🗆 F	auipm	ent Blai	nk (FB)	■ QA/QC Ex	tra Vol	umes MS/MSI)	
☐ Trip Blank (TB)	OLLLOILD					e ID				
☐ Ambient Conditio	n Blank (Al									
					TER PARAI					
	 									
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY
15:35	8.6		>1,9	90		5°C				
							<u> </u>			
				MON	ITORING P	EADINGS				
						HANBY SCREEN	NING			
TIME	PID READ	ING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
				ROW LA				ANCHO	ORAGE	LAB
ANALYSES				TAINER		ANALYSES		CON	ITAINE	RS
ANALYSES	/	10	VATER		SOIL	ANALISES	/	WATER		SOIL
TOU		1 liter	VAILI		8 oz	VOC (8260)		3 x 40 ml		4 oz
TPH	/	ı iitei			8 02	SVOC (8270)		1 liter		8 oz
PCB										8 oz
PESTICIDES				1		TOTAL METALS		1 liter		
HVOC 8010	1 x 40	mi		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020					TDS		250 ml			
						TSS		250 ml		
						тос		500 ml	г -	4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

SAMPLE COLLECTION LOGS FOR THE POL CATCHMENT (LF03)

DATE: <u>8/20/93</u>										
RADAR STATION: B	Barter WEATHER: Sunny, clear, breezy, cool. 30°F									
SITE/AOC: POL Cat	chment, LF	03	F	EET FF	ROM FIXED	POINT: 90		MAGNETIC H	EADIN	G: <u>50°</u>
FIXED POINT: The e	east corner	of the so	outherr	suppo	rt of the exp	oosed pipeline.		····		
SAMPLE MATRIX:	Soil (S)		Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M										
TIME SAMPLED: 10										
SAMPLE DESCRIPTI									erm ald	ong drainage
ditch of POL tank 18,				berm).	Note steel i	n area may affect m	agnetic	readings.		
SAMPLING METHOD				****				·		
QA/QC SAMPLES CO										
			Duplica	ite of W	ater Sample	e ID				
☐ Ambient Conditio	n Blank (A	B) ∐ F	Replica	te of So	oil Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	TURBIDITY
	····			MON	IITORING P	READINGS			<u> </u>	
I			-	10101	in orting r	T				
TIME	PID READ	DING (pp	m)	CG/LI	EL (%)	HANBY SCREET (standard/ppm)	NING			
						(+	
BG=Background:	BZ=Breath	ina Zone	e: BH=	Boreho	le: NR=No	Readings; HS=Hea	adsnac	l - S-Sample	(uncor	ntained)
							асрас	5, 0—0ampio	(41100)	nairied)
		<u> </u>				S REQUESTED				
			BAR	ROW LA	\B 			ANCHO	DRAGE	LAB
ANALYSES	1		CON	TAINEF	RS	ANALYSES	1	CON	TAINE	RS
		V	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ						SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/18/93	ATE: 8/18/93 SAMPLE ID: BTR-LF03-S0175 ADAR STATION: Barter WEATHER: Sunny, partly cloudy, calm, cool, 40's°F								
RADAR STATION: B									
SITE/AOC: POL Cate	chment Ba	hment Basin, LF03 FEET FROM FIXED POINT: 3 MAGNETIC HEADING: 35°							
FIXED POINT: Drain	pipe from	18 DFA tank	. Distance	e measured	in line with pipe				
SAMPLE MATRIX:	Soil (S)	☐ Sedi	ment (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M	L								
TIME SAMPLED: 13	3:17		DEPTH O	F SAMPLE	(feet): 8" below sur	face			
SAMPLE DESCRIPTION	ON/COMM	ENTS: Botto	om of eroo	ded gulley a	t end of pipe.				
SAMPLING METHOD	: <u>Disposa</u>	ble scoop							
QA/QC SAMPLES CO	OLLECTED	: 🗌 Equi	oment Bla	nk (EB)	☐ QA/QC E	tra Vol	umes		
☐ Trip Blank (TB)		☐ Dupl	cate of W	ater Sample	e ID				
☐ Ambient Condition	n Blank (Al	B) 🗌 Repl	cate of So	oil Sample II	D				
			WA	TER PARA	METERS			·	
TIME	PH	C	ONDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	ry -	TURBIDITY
11112	1			· · · · · · · · · · · · · · · · · · ·	1200 2770002	1			
			· - · - · · ·						
	<u> </u>		MON	NITORING R	EADINGS				
			10101	iii Oniii Ci		WN 6	<u> </u>	I	
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	HANBY SCREET (standard/ppm)	NING			
		(1-1)		(/	(**************************************				
			-						
BG=Background; I	BZ=Breath	ing Zone; B	H=Boreho	ole; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(unco	ntained)
			✓ CHECK	ANALYSES	S REQUESTED				
		B/	RROW LA	\B			ANCHO	ORAGE	LAB
ANALYSES	1	C	DNTAINEF	RS	ANALYSES	1	CON	ITAINE	RS
		WAT	ER	SOIL			WATER		SOIL
TPH	1	1 liter	······································	8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
		-			TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/18/93									
RADAR STATION: _B	arter WEATHER: Sunny, partly cloudy, calm, cool, 40's°F								
	atchment Basin, LF03 FEET FROM FIXED POINT: 7						IAGNETIC HEA	ADING	3: 55°
FIXED POINT: Drain									
SAMPLE MATRIX:	Soil (S)	□ Se	ediment (SD) 🗆	Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M	IL								
TIME SAMPLED: 1				OF SAMPLE	(feet): 8" below su	rface			
SAMPLE DESCRIPTI	ON/COMM	ENTS: B	ottom of ero	ded gulley a	at end of pipe.				
					** *		····		
SAMPLING METHOD									
QA/QC SAMPLES C	OLLECTED								
☐ Trip Blank (TB)		☐ D:	uplicate of W	later Sampl	e ID				
Ambient Condition	n Blank (A	B) ∐ Re	eplicate of S	oil Sample I	D				· · · · · · · · · · · · · · · · · · ·
			W	ATER PARA	METERS				
TIME	PH		CONDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ .	TURBIDITY
	_					<u> </u>			
			МОІ	NITORING F	READINGS				
					HANBY SCREET	NING			
TIME	PID READ	DING (ppn	n) CG/L	EL (%)	(standard/ppm)				
								\top	
50.5.									
BG=Background;	BZ=Breath	ing Zone;	BH=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample (unco	ntained)
			✓ CHECK	C ANALYSE:	S REQUESTED				
			BARROW L	AB			ANCHO	RAGE	LAR
					1				
ANALYSES		:	CONTAINE	તડ ⊤	ANALYSES	/	CONT	TAINE	RS
		W	ATER	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 n	nl	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8/18/93</u>			SA	AMPLE	ID: <u>BTR-L</u> F	-03-S0375				
RADAR STATION: Barter WEATHER: Sunny, partly cloudy, calm, cool, 40°F										
SITE/AOC: POL Cat	E/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 15 MAGNETIC HEADING: 115° ED POINT: Intersection of north-south Berm Road and the east-west Berm Road.									
FIXED POINT: Inters	section of n	orth-sout	h Berr	n Road	and the ea	st-west Berm Road.				
SAMPLE MATRIX: I SAMPLERS: RO, M	, ,	□ S	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: 13	•		DE	EPTH O	F SAMPLE	(feet): 8" below sur	face			
SAMPLE DESCRIPTI		ENTS: E				• • • • • • • • • • • • • • • • • • • •		Road at bottor	n of g	ulley cut int
road bank.		-							, , , , , , , , , , , , , , , , , , ,	
SAMPLING METHOD	D: <u>Disposa</u>	ble scoop)							
QA/QC SAMPLES C	OLLECTED): 🗆 E	quipm	ent Bla	nk (EB)	☐ QA/QC EX	tra Vol	umes		
☐ Trip Blank (TB)			uplica	te of W	ater Sampl	e ID				
Ambient Condition	n Blank (A	B) 🗆 R	eplica	te of So	oil Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY
				MON	IITORING F	READINGS				
						HANBY SCREET	NING			
TIME	PID REAL	OING (ppi	m)	CG/LI	EL (%)	(standard/ppm)				
PG - Packground:	P7—Brooth	ning Zono	· DU_	Porobo	ilo: ND-No	Readings; HS=Hea	denac	a: S-Sample	(uncor	ntained)
BG=Background,	DZ-Dieali	iing zone					dspac	e, o-oampic	(di iooi	itali ica)
	<u> </u>	l .				S REQUESTED		4210116	DA 05	TIAD
			BAR	ROW LA				ANCHO	HAGE	LAD
ANALYSES	1		CON	TAINEF	RS	ANALYSES	1	CON	TAINE	RS
		W	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)	.,	1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml	-	4 oz
						TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8/18/93</u>	SAMPLE ID: BTR-LF03-SD01 WEATHER: Supply clear breezy mild high 40's°E									
	Barter WEATHER: Sunny, clear, breezy, mild, high 40's°F									
SITE/AOC: POL Cate	tchment Basin, LF03 FEET FROM FIXED POINT: 70 MAGNETIC HEADIN							G:		
FIXED POINT: <u>Drain</u>										
SAMPLE MATRIX:		■ S	3edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, MI					= :::51.5					
TIME SAMPLED: 12										
SAMPLE DESCRIPTION	JN/GOIVIIVI	EN15: 5	South e	edge or	standing be	ody of water at pase	of ara	inage from Pu)L.	
SAMPLING METHOD	: <u>Disposa</u>	ble scoo	p							
QA/QC SAMPLES CO	OLLECTED					☐ QA/QC Ex				
☐ Trip Blank (TB)			Duplicat	te of Wa	ater Sample	e ID				
☐ Ambient Condition	n Blank (Al	B) 🗆 R	?eplicat	te of Sc	oil Sample I	D				
				WA	TER PARAI	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
						1	1		\top	
									+	
	1		<u> </u>				+		+	<u> </u>
				1400	TODING E	ODINO DE ADIAGO				
				MUN	NITORING R	T		T		
TIME	PID READ	DING (pp	m)	CG/LEL (%)		HANBY SCREEN (standard/ppm)	NING			
						 			\top	
									+	
BG=Background; F	BZ=Breath	ina Zone	 :: BH=	Boreho	le: NR=No	Readings; HS=Hea	adspace	- S=Sample	Lincor (uncor	ntained)
						S REQUESTED	toop	3, 0 - 0	, u 1	huniou,
						3 REQUESTED				
			BARH	ROW LA	.B]		ANCHO	RAGE	E LAB
ANALYSES	1		CON	TAINER	IS	ANALYSES	1	CON	TAINE	RS
		W	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	\	3 x 40 ml		4 oz
РСВ						SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 i	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	/					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/18/93	93 SAMPLE ID: BTR-LF03-SD02									
RADAR STATION: B	Barter WEATHER: Sunny, clear, mild, calm, 40's°F Catchment Basin, LF03 FEET FROM FIXED POINT: 26 MAGNETIC HEADING: 180°									
SITE/AOC: POL Cate	chment Bas	sin, LF03	FE	ET FR	OM FIXED	POINT: <u>26</u>		MAGNETIC H	EADIN	G: <u>180°</u>
FIXED POINT: South	of intersec	ction of no	orth-so	uth Ber	m Road ar	nd the north side eas	st-west	Berm Road.		
SAMPLE MATRIX:	☐ Soil (S)	■ Se	edimen	t (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M				····						
TIME SAMPLED: 15										
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>E</u>	dge of	shoreli	ne silt and	clay, black organics	s, veget	ation material		
SAMPLING METHOD): Spade a	nd scoop	dispos	sable						
QA/QC SAMPLES CO					nk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)					` ') ID				
☐ Ambient Conditio	n Blank (Al	3) R e	plicate	of So	il Sample II	BTR-LF03-SD08				
				WA ⁻	TER PARAI	METERS				
TIME	PH		COND	UCTIV	ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ 1	URBIDITY
							1			
							.!			
MONITORING READINGS										
TIME	PID READ	ING (nnn	n)	CG/LE	1 (%)	HANBY SCREEN (standard/ppm)	NING			
111112	, 10 112,12	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			(/3)	Comment				
PG-Packground:	B7-Breath	ing Zone:	BH-F	Rorehol	ie: NR-No	Readings; HS=Hea	dspace	e: S=Sample	l (uncor	ntained)
BG-Background,	DZ=Dieam	ing zone,					шорио	s, e	(=	
						S REQUESTED				
			BARR	OW LA	В			ANCHO	HAGE	TAR
ANALYSES	1		CONT	AINER	S	ANALYSES	1	CON	TAINE	RS
		W	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ml			4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml	-	
						TSS		250 ml		
						TOC		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to $\mathrm{4^{\circ}C}$

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8/18/93</u>										
	Barter WEATHER: Sunny, clear, mild, calm, 40's°F ttchment Basin, LF03 FEET FROM FIXED POINT: 26 MAGNETIC HEADING: 180°									
SITE/AOC: POL Cate	chment Bas	sin, LF03	FE	ET FRO	OM FIXED F	OINT: 26	N	AGNETIC HE	ADING	à: <u>180°</u>
FIXED POINT: South										
SAMPLE MATRIX:	☐ Soil (S)	■ S	Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, PO										
TIME SAMPLED: 15										
SAMPLE DESCRIPTION	ON/COMM	ENTS: E	dge o	f shorel	ine silt and	clay, black clay, ve	getation	n material, red	ucing :	<u>environment</u>
SAMPLING METHOD	Snade a	and scool	n disno							
QA/QC SAMPLES CO					nk (FR)	☐ QA/QC Ex	rtra Vol	limae		
☐ Trip Blank (TB)	JEEL 0				• •	e ID				
☐ Ambient Conditio	n Blank (Al									
			•		TER PARA					_
TIME	PH		CON			1	Tope	O'C'O ODANII		
TIME	1 77		CON	IDUCTIV	//T Y	TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY
				1401	"TOPINO D	DEADINGS				
				MOIN	IITORING R			1		
TIME	PID READ	NNG (nn	·m)	n) CG/LEL (%)		HANBY SCREEN (standard/ppm)	NING			
11171-	110 1101	<u>мчо (рр.</u>	''''	00,22	-L (/o)	(διαπααια/ρριπ)			+	
									-	
									\bot	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
						/ ILGOLO ILL		ANCHO		- 1 AD
			BAR	ROW LA	'R			ANCHO	HAGE	: FAR
ANALYSES	1		CON	TAINER	íS .	ANALYSES	1	CON	TAINE	RS
		w	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml	-	4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
	•					TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
						ICLF		∠ III.⊎IS		2 X O UZ
								ļ '		

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8/18/93</u>			SAMPLE	ID: BTR-LI	-03-SD04				
RADAR STATION: _E	arter WEATHER: Sunny, clear, mild, calm, 40's°F								
SITE/AOC: POL Cat	chment Ba	nent Basin, LF03 FEET FROM FIXED POINT: 125 MAGNETIC HEADING: 310°							
FIXED POINT: North	neast corne	er of the DLM	Building.						
SAMPLE MATRIX: [` '	Sedir	nent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RO, M</u> TIME SAMPLED: 10			DEPTH C	DE SAMPLE	(feet): Surface to 6	" helov	1		
SAMPLE DESCRIPTI								t-west	Berm Road
Silt and black clay, a						.,,,			
SAMPLING METHOD			IVII OTITICI	n, vogotatie	in material.				
QA/QC SAMPLES C			ment Bla	nk (FB)	□ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)	OLLLOILL				e ID		anno o		
☐ Ambient Condition	on Blank (A	•		•					
			·	ATER PARA					
TIME	PH	CC	NDUCTI		TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
	, , , ,							\dashv	
						1		十	
			MOM	NITORING F	READINGS				
			10101	VII O I II VO I			1		
TIME	PID REA	DING (ppm)	CG/L	EL (%)	HANBY SCREE! (standard/ppm)	NING			
BG=Background;	BZ=Breath	ning Zone; Bl	l=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncoi	ntained)
			✓ CHECK	C ANALYSE	S REQUESTED				
		ВА	RROW L	AB			ANCHO	RAGE	E LAB
ANALYSES	1	CC	NTAINEF		ANALYSES	1	CON	TAINE	RS
		WATE		SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	/				TDS		250 ml		
TSS 250 ml									
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8/18/93</u>			S/	AMPLE	ID: BTR-LF	03-SD05-1.0				
RADAR STATION: B	SAMPLE ID: BTR-LF03-SD05-1.0 Barter WEATHER: Sunny, clear, mild, calm, 40's°F									
	chment Basin, LF03 FEET FROM FIXED POINT: 125 MAGNETIC HEADING: 310°									
FIXED POINT: North	east corne	r of the C	<u>)LM B</u> ı	uilding.						
SAMPLE MATRIX:		S	Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M								****		
TIME SAMPLED: 16										
SAMPLE DESCRIPTION							ast-wes	st Berm. At the	edge :	of shoreline
Silt, black clay and o				nent, ve	getation ma	aterial on bottom.				
SAMPLING METHOD QA/QC SAMPLES CO				Dia	/CD\		· \/m1			
☐ Trip Blank (TB)	JLLEUTED					☐ QA/QC E				
	n Blank (A					e ID		***************************************		
Ambient Condition Blank (AB) Replicate of Soil Sample ID										
	WATER PARAMETERS									
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	י אַ אַר	TURBIDITY
							<u> </u>			
				MON	NITORING R	EADINGS				
						HANBY SCREET	NING			
TIME	PID READ	JING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
			-							
PG-Rackground:	P7-Breath	ina Zone		Porobo	-la: ND-Na	Deadings: US_Us		-: C. Comple		-+-:
BG-Background,	DZ-Diean	IIII ZUITE				Readings; HS=Hea	aspac	3; S=Sample	(unco	ntained)
		· · · · · · · · · · · · · · · · · · ·		CHECK	ANALYSES	REQUESTED				
			BARF	ROW LA	√B			ANCHO	RAGE	: LAB
ANALYSES	1		CON	TAINER	RS	ANALYSES	1	CON	TAINE	RS
		M	VATER		SOIL			WATER		SOIL
TPH	<	1 liter			8 oz	VOC (8260)		3 x 40 mi		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/18/93			SAN	MPLE I	D: BTR-LF	03-SD06				
RADAR STATION: B	ON: Barter WEATHER: Sunny, clear, mild, calm, 40's°F									
SITE/AOC: POL Cate	chment Ba	sin, LF03	FE	ET FRO	OM FIXED I	POINT: <u>54</u>	٨	MAGNETIC HE	ADINO	3: <u>80°</u>
FIXED POINT: Inters	ection of n	orth-south	n Berm	Road	and the no	rth east-west Berm	Road.			
SAMPLE MATRIX:		■ Se	edimen	t (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M		_								
TIME SAMPLED: 15										
SAMPLE DESCRIPTION	ON/COMM	ENIS: S	outnern	n side	of drain pip	e, north of POL cat	cnmen	basin, roots,	gravei	, Siit DOLLOIT
SAMPLING METHOD): <u>Disposa</u>	ble scoop)							
QA/QC SAMPLES CO	OLLECTED	: 🗆 E	quipme	nt Blar	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)			uplicate	e of Wa	ater Sample	e ID				
☐ Ambient Conditio	n Blank (A									
				WA	TER PARAI	METERS				
TIME	PH		COND	LICTIV	/ITV	TEMPERATURE	SPE	CIFIC GRAVI	7 7	URBIDITY
THVIL			COND	700114	111	TEINI ETITIONE	+	0110 011111		0.10.0111
 	<u> </u>	[- 							
		***************************************		MON	ITORING R	EADINGS				
				CG/LEL (%)		HANBY SCREENING				
TIME	PID READ	DING (ppr	n)			(standard/ppm)				
			İ							
BC Background	D7Prooth	ina Zana	. DUD	Porobo	lo: ND-No	Readings; HS=Hea	depac	o: C-Cample	(uncor	ntained)
BG=Background,	DZ=Breatr	ing Zone,	, bn=b	oueno	ie, inn=ino	neadings, 115—11ea	uspaci	e, 0=0ample	(di icoi	
			√ C	HECK	ANALYSES	REQUESTED				
			BARRO	OW LA	.B			ANCHO	RAGE	LAB
ANIALVOTO			CONT	VIVIED	<u> </u>	ANIALVOTO		CON	TAINE	RS.
ANALYSES			CONT	AINLI		ANALYSES	/			
		W.	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 r	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
					TSS		250 ml			
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

MARCHER Sunny Clear, mild, calm, 40's F	DATE: <u>8/18/93</u>	SAMPLE ID: BTR-LF03-SD07										
MAGNETIC HEADING: 100*		ION: Barter WEATHER: Sunny, clear, mild, calm, 40's°F										
SAMPLERS: RO, ML									MAGNETIC HE	ADIN	G: <u>100°</u>	
SAMPLERS: RO, ML TIME SAMPLED: 15.42 DEPTH OF SAMPLE (feet): Surface sediment 6" deep SAMPLE DESCRIPTION/COMMENTS: Small water filled depression on north side of bern at northern edge of POL catchmen Dasin. SAMPLEN DESCRIPTION/COMMENTS: Small water filled depression on north side of bern at northern edge of POL catchmen Dasin. SAMPLED 15.42 DEPTH OF SAMPLE (feet): Surface sediment 6" deep SAMPLED SCOLLECTED: Small water filled depression on north side of bern at northern edge of POL catchmen Dasin. SAMPLEN DESCRIPTION/COMMENTS: Small water filled depression on north side of bern at northern edge of POL catchmen Dasin. SAMPLED 15.42 DEPTH OF SAMPLE (feet): Surface sediment 6" deep DAGO SAMPLES COLLECTED: DESCRIPTION OF POL catchmen DAGO SAMPLES COLLECTED: DESCRIPTION OF POL catchmen WATER PARAMETERS TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAVITY TURBIDITY MONITORING READINGS TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)	FIXED POINT: Inters	seciton non	th-south	Berm F	Road ar	nd the north	east-west Berm Ro	ad.				
DEPTH OF SAMPLE (feet): Surface sediment 6" deep	SAMPLE MATRIX:	☐ Soil (S)	S	3edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLE DESCRIPTION/COMMENTS: Small water filled depression on north side of berm at northern edge of POL catchmen assample. Disposable scoop DA/OC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID					·	VI. 400	PV 15-1					
SAMPLING METHOD:												
SAMPLING METHOD: Disposable scoop	SAMPLE DESCRIPTION	ON/COMM	ENTS: S	mall w	ater fille	ed depression	on on north side of t	oerm at	northern edge	of PC	L catchmen	
CAYOC SAMPLES COLLECTED:	basin.											
Trip Blank (TB)												
Ambient Condition Blank (AB)												
TIME)uplica	te of W	ater Sample	e ID			····		
TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAVITY TURBIDITY MONITORING READINGS TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) MONITORING READINGS TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) ANALYSES SEQUESTED BARROW LAB BARROW LAB ANALYSES ANALYSES ANALYSES CONTAINERS SOIL TIME WATER SOIL WATER SOIL TIME ANALYSES ANALYSES ANALYSES ANALYSES ANALYSES Y CONTAINERS SOIL TIME ANALYSES Y CONTAINERS SOIL WATER SOIL WATER SOIL TIME <td< td=""><td>☐ Ambient Conditio</td><td>n Blank (A</td><td>B)</td><td>leplica:</td><td>te of Sc</td><td>oil Sample I</td><td>D</td><td></td><td></td><td></td><td></td></td<>	☐ Ambient Conditio	n Blank (A	B)	leplica:	te of Sc	oil Sample I	D					
MONITORING READINGS MANALYSES MANA		,			WA	TER PARA	METERS					
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) Image: Control of the part of	TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	FURBIDITY	
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) L						· · · · · · · · · · · · · · · · · · ·						
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) L								-				
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) L												
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) L												
TIME PID READING (ppm) CG/LEL (%) (standard/ppm) Image: control of the properties					MON	IITORING R	EADINGS					
TIME PID READING (ppm) CG/LEL (%) (standard/ppm) Image: control of the properties												
BARROW LAB BARROW LAB ANALYSES ANAL	TIME	PID READ	DING (pp	m)	CG/LE	EL (%)						
BARROW LAB BARROW LAB ANALYSES ANAL	:											
BARROW LAB BARROW LAB ANALYSES ANAL												
BARROW LAB BARROW LAB ANALYSES ANAL	50 5								1			
BARROW LAB ANALYSES ANCHORAGE LAB ANALYSES ANCHORAGE LAB CONTAINERS WATER SOIL TPH ✓ 1 liter SOIL PCB SVOC (8260) ✓ 3 x 40 ml 4 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter TDS 250 ml TDS 250 ml TDS 500 ml 4 oz TOC ✓ 500 ml TDS <th c<="" td=""><td>BG=Background;</td><td>BZ=Breath</td><td>ing Zone</td><td>); BH=</td><td>Boreho</td><td>le; NR=No</td><td>Readings; HS=Hea</td><td>adspac</td><td>e; S=Sample</td><td>(uncor</td><td>ntained)</td></th>	<td>BG=Background;</td> <td>BZ=Breath</td> <td>ing Zone</td> <td>); BH=</td> <td>Boreho</td> <td>le; NR=No</td> <td>Readings; HS=Hea</td> <td>adspac</td> <td>e; S=Sample</td> <td>(uncor</td> <td>ntained)</td>	BG=Background;	BZ=Breath	ing Zone); BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
ANALYSES ✓ CONTAINERS ✓ CONTAINERS TPH ✓ 1 liter 8 oz VOC (8260) ✓ 3 x 40 ml 4 oz PCB FESTICIDES FOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml 4 oz TSS 250 ml TOC ✓ 500 ml 4 oz				1	CHECK	ANALYSES	S REQUESTED					
WATER SOIL WATER SOIL TPH ✓ 1 liter 8 oz VOC (8260) ✓ 3 x 40 ml 4 oz PCB — SVOC (8270) ✓ 1 liter 8 oz PESTICIDES — TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS TOC ✓ 500 ml 4 oz				BARF	ROW LA	λB			ANCHO	RAGE	LAB	
WATER SOIL WATER SOIL TPH ✓ 1 liter 8 oz VOC (8260) ✓ 3 x 40 ml 4 oz PCB — SVOC (8270) ✓ 1 liter 8 oz PESTICIDES — TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS TOC ✓ 500 ml 4 oz	ANALYSES			CON	TAINER	ıs.	ANALVOES	,	CON	TAINE	RS.	
TPH ✓ 1 liter 8 oz VOC (8260) ✓ 3 x 40 ml 4 oz PCB SVOC (8270) ✓ 1 liter 8 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TOC ✓ 500 ml 4 oz	AIVALIOLO	+				<u> </u>	ANALISES				I	
PCB SVOC (8270) ✓ 1 liter 8 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TOC ✓ 500 ml 4 oz				/AIER							SOIL	
PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC ✓ 500 ml 4 oz		/	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC ✓ 500 ml 4 oz	PCB						SVOC (8270)	1	1 liter		8 oz	
VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC ✓ 500 ml 4 oz	PESTICIDES						TOTAL METALS		1 liter		8 oz	
TSS 250 ml TOC ✓ 500 ml 4 oz	HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter			
TOC ✓ 500 ml 4 oz	VOC-BTEX 8020	1					TDS		250 ml			
							TSS		250 ml			
							тос	1	500 ml		4 oz	
TCLP							TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/18/93	SAMPLE ID: BTR-LF03-SD08								
RADAR STATION: B	Barter WEATHER: Sunny, clear, mild, calm, 40°F atchment Basin, LF03 FEET FROM FIXED POINT: 26 MAGNETIC HEADING: 180°								
								ADING	i: <u>180°</u>
FIXED POINT: South									
SAMPLE MATRIX: [Soil (S)	■ Sec	diment (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, P									
TIME SAMPLED: 15									
SAMPLE DESCRIPTI	ON/COIVIN	EN15: EU	ge or snore	ime, siit and	DIACK CIAY Organics	s, vege	iation material		
SAMPLING METHOD): Spade a	nd disposa	able scoop						
QA/QC SAMPLES C	OLLECTED	: 🗌 Equ	uipment Bla	ınk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)					e ID				
Ambient Condition	n Blank (A	B) 🔳 Rep	olicate of So	oil Sample II	D BTR-LF03-SD02				
			WA	TER PARA	METERS				
TIME	PH		CONDUCTIV	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ	URBIDITY
						<u> </u>			
						-		-	
			MOM	NITORING F	READINGS				
					HANBY SCREEN	JING			
TIME	PID READ	DING (ppm)) CG/LI	EL (%)	(standard/ppm)				
	<u></u>								
PG-Background:	B7-Breath	ina Zone: l	BH-Boreho	Na: NR-No	Readings; HS=Hea	adspace	e: S=Sample	(uncor	ntained)
BG=Background,	DZ-Dieau	ing zone, i				асорио	o, o – oumpio	(41.154.	
			✓ CHECK	(ANALYSE:	S REQUESTED				
		E	BARROW L	AB			ANCHO	RAGE	LAB
ANALYSES	1	(CONTAINER	RS	ANALYSES	1	CON	TAINE	RS
		WA	TER	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 m	1	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					TOC		500 mi		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9/01/93</u>			s/	AMPLE	ID: BTR-LF	03-2SD09				
RADAR STATION: B	N: Barter WEATHER: Cloudy and cold, 25°F									
SITE/AOC: Catchme	ent Basin		FE	EET FR	OM FIXED	POINT: <u>19</u>		MAGNETIC H	IEADII	NG: East
FIXED POINT: Samp	ole at 19 fe	et east o	f SD06	/SW03	on east sid	e of conduit.				
SAMPLE MATRIX:	Soil (S)		Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: ML, R	Γ									
TIME SAMPLED: 16						(feet): 18 inches				
SAMPLE DESCRIPTI			Sample	taken f	from tundra	sod/peat at 6-18-ind	h dept	h composite.	Tundr	a had neithe
appearance nor odo					·····					
SAMPLING METHOD								.		
QA/QC SAMPLES C	OLLECTED				• •	☐ QA/QC E		umes		
☐ Trip Blank (TB)						e ID				
Ambient Condition	n Blank (A	B)	Replica	te of So	oil Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	IDUCTI\	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
	_	<u>-</u>								
				MON	NITORING F	READINGS				
						HANBY SCREE	NING			
TIME	PID READ	PID READING (ppm)			EL (%)	(standard/ppm)				
										:
PC - Pookground	DZ Brooth		. DU	D	Ja. ND. Na	Danilla va 110 11a				
BG=Background,	DZ=Breath	iing zone	e; BH=	Boreno	DIE; NH=NO	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BARI	ROW LA	∤ Β			ANCHORAGE LAB		LAB
*****										.00
ANALYSES	- /		CON	NTAINERS		ANALYSES	/	CON	TAINE	:HS
		<u> </u>	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	m!		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
				•		TSS		250 ml		
						TOC		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
L		<u> </u>			L	1				

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9/01/93</u>			_ SAMPLE	ID: BTR-LF	-03-2SD10					
RADAR STATION: _E	Barter		WEATHE	R: Cloudy	and cold, 25°F					
SITE/AOC: Catchment Basin FEET FROM FIXED POINT: 41 MAGNETIC HEADING: Nor								ING: North		
FIXED POINT: Sam	ple taken 4	1 feet north	of SD03/S	W06, 1 foo	t west of conduit.				pr	
SAMPLE MATRIX: Soil (S) Sediment (SD) Surface Water (SW) Groundwater (GW)										
SAMPLERS: ML, R									· · · · · · · · · · · · · · · · · · ·	
TIME SAMPLED: 16:50 DEPTH OF SAMPLE (feet): 18 inches										
SAMPLE DESCRIPT	ION/COMM	IENTS: <u>Sar</u>	mple taken	41 feet nort	h of SD03/SW06.					
SAMPLING METHO	D: <u>Disposa</u>	ıble scoop								
QA/QC SAMPLES C	OLLECTED): 🗌 Equ	uipment Bla	ink (EB)	☐ QA/QC E	tra Vol	umes			
☐ Trip Blank (TB)					e ID					
☐ Ambient Condition	on Blank (A									
				TER PARA						
TINAC	PH		CAIDLICTI	//T/	TEMPEDATURE	CDE	CIFIC GRAVIT	, T.	TURBIDITY	
TIME	I FR		CONDUCTIV	VIII	TEMPERATURE SPE		CIFIC GRAVI	· ·	וועומחטוו	
								-		
MONITORING READINGS										
TIME	DID BEVI	DING (ppm)	CG/U	EL (%)	HANBY SCREET (standard/ppm)	NING				
	FID REAL	Jira (ppin)	CG/Li	LL (%)	(Standard, ppin)			-		
NR										
BG=Background;	BZ=Breath	ning Zone; £	BH=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)	
			✓ CHECK	ANALYSE	S REQUESTED					
		В	ARROW LA	λB			ANCHORAGE LAB			
ANALYSES	1		ONTAINEF	RS	ANALYSES	1	CONTAINERS			
		WA ⁻	TER	SOIL			WATER		SOIL	
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 mi		4 oz	
РСВ					SVOC (8270)		1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 ml			
					тос		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8/18/93</u>			SAM	/PLE I	D: BTR-LF	03-SW01					
RADAR STATION: B											
SITE/AOC: POL Catchment Basin, LF03 FEET FROM FIXED POINT: 70 MAGNETIC HEADING: 5											
FIXED POINT: <u>Drain</u>				-							
SAMPLE MATRIX:			ediment	t (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO, M								····			
	FIME SAMPLED: 11:50 DEPTH OF SAMPLE (feet): Surface 6" deep water body SAMPLE DESCRIPTION/COMMENTS: Small body of water at eastern base of drainage area of POL entering POL catchment										
			mall boo	dy of v	water at eas	stern base of draina	ge area	of POL enteri	ng PC	L catchmen	
basin - standing water	····							****			
SAMPLING METHOD								***************************************			
QA/QC SAMPLES CO											
☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID											
Ambient Condition	II BIAIIK (A	b) 🗆 R	eplicate	01 50	ii Sampie II)					
WATER PARAMETERS											
TIME	PH		COND	UCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY	
11:45	7.3		1300			7°C				<0.0001	
	ļ	1									
				MON	ITORING R	EADINGS		1			
TIME	TIME PID READING (ppm)			n) CG/LEL (%)		HANBY SCREET (standard/ppm)	NING				
	TID TIETE	yiita (ppi	ny Ga/LEE (%)		(/0)	(5.0.7.50.10, pp.11)					
BC Basharawati I	27 . D	·									
BG=Background; [5Z=Breath	ing Zone;	RH=R	oreno	ie; NH=No	Headings; HS=Hea	adspac	e; S=Sample	(uncoi	ntained)	
			✓ Cł	HECK	ANALYSES	REQUESTED					
			BARRO	RROW LAB				ANCHORAGE		LAB	
ANALYSES	1		CONTA	TAINERS		ANALYSES	1	CONTAINE		RS	
		W	ATER		SOIL	, , , , , , , , , , , , , , , , , , , ,	_	WATER		SOIL	
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
PCB	_	7 11101			0 02	SVOC (8270)	/	1 liter		8 oz	
PESTICIDES						TOTAL METALS	,	1 liter		8 oz	
HVOC 8010		1 x 40 r	ml T		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	/	1 7 40 1	"		7 02	TDS	1	250 ml			
						TSS		250 ml			
						TOC	1	500 ml		4.07	
							✓			4 OZ	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

MARCHER MARC	DATE: <u>8/18/93</u>			SA	AMPLE I	ID: <u>BTR-Lf</u>	F03-SW02				
SAMPLER SOIL											
SamPLERS: RO, ML	SITE/AOC: POL Cat	chment Ba	sin, LF03	FI	EET FR	OM FIXED	POINT: 60		MAGNETIC HE	EADIN	G: <u>175°</u>
SAMPLERS: RO, ML SAMPLED: 14:25 DEPTH OF SAMPLE (feet): Surface water 6' deep SAMPLED: 14:25 DEPTH OF SAMPLED: Surface water 6' deep SAMPLED (SAMPLED ESCRIPTION/COMMENTS: Vegetative material and slit bottom; sampled in 6' of water, 2 feet away from shoreline SAMPLED ESCRIPTION/COMMENTS: Vegetative material and slit bottom; sampled in 6' of water, 2 feet away from shoreline SAMPLED (SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID WATER PARAMETERS WATER PARAMETERS WATER PARAMETERS VERTICAL PROPERTY TEMPERATURE SPECIFIC GRAVITY TURBIDITY 13:55 8:0 1040 11°C Vertical Parameters Vertical Paramet	FIXED POINT: Inters	section of n	orth-sout	h Berr	n Road	and the no	orth east-west Berm	Road			
TIME			□ s	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLE DESCRIPTION/COMMENTS: Vegetative material and silt bottom; sampled in 6" of water, 2 feet away from shoreline	· · · · · · · · · · · · · · · · · · ·					ECAMPLE	(foot): Surface wat	or 6" d	200		
MAMPLING METHOD: Disposable bailer	_									way fro	m shoreline
Cayloc Sample Solition Cayloc Sample ID Caylo	SAMPLE DESCRIPTI	ON/COMIN	EN13. <u>V</u>	egetat	iive maii	eriai ariu si	t bottom, sampled ii	10 011	valer, Z reet at	vay iic	ATT SHOTOINE
Trip Blank (TB)	SAMPLING METHOD	D: <u>Disposa</u>	ble bailer								
Ambient Condition Blank (AB)	QA/QC SAMPLES C	OLLECTED	: 🗆 E	quipm	nent Blai	nk (EB)	☐ QA/QC E	tra Vol	umes		
TIME PH	☐ Trip Blank (TB)			uplica	te of Wa	ater Sampl	e ID				
TIME	☐ Ambient Condition	n Blank (A	B) 🗌 R	eplica	te of So	il Sample I	D				
13:55 8.0 1040 11°C					WA	TER PARA	METERS				
Note	TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry T	TURBIDITY
TIME	13:55	8.0		1040			11°C	11°C			<0.0001
TIME										_	
TIME											
TIME PID READING (ppm) CG/LE (%) (standard/ppm) Image: control of the properties o					MON	IITORING F	READINGS				
BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)	TIME	PID REAL	DING (ppi	om) CG/LE		EL (%)		NING			
BARR BARR SOIL SOIC			41 /								
BARR BARR SOIL SOIC											
BARROW LAB ANALYSES ANCHORAGE LAB ANALYSES ANALYSES </td <td>BG=Background;</td> <td>BZ=Breath</td> <td>ning Zone</td> <td>; BH=</td> <td>Boreho</td> <td>le; NR=Nc</td> <td>Readings; HS=Hea</td> <td>adspac</td> <td>e; S=Sample</td> <td>(uncor</td> <td>ntained)</td>	BG=Background;	BZ=Breath	ning Zone	; BH=	Boreho	le; NR=Nc	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
ANALYSES				/	CHECK	ANALYSE	S REQUESTED				
WATER SOIL WATER SOIL				BARF	ROW LA	\B			ANCHORAGE LAB		
WATER SOIL WATER SOIL TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml 4 oz PCB Image: SVOC (8270) 1 liter 8 oz PESTICIDES Image: SVOC (8270) 1 liter 8 oz HVOC 8010 Image: SVOC (8270) 1 liter 8 oz HVOC 8010 Image: SVOC (8270) 1 liter 8 oz TDS 1 liter 1 liter VOC-BTEX 8020 Image: SVOC (8270) 1 liter TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	ANALYSES			CONTAINERS		is	ANALYSES	1	CONTAINER		RS
PCB SVOC (8270) 1 liter 8 oz PESTICIDES TOTAL METALS 1 liter 8 oz HVOC 8010 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 Image: Control of the control			w	ATER		SOIL			WATER		SOIL
PESTICIDES Image: Control of the c	TPH	1	1 liter	· · · · ·		8 oz	VOC (8260)		3 x 40 ml		4 oz
HVOC 8010 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC 500 ml 4 oz	РСВ						SVOC (8270)		1 liter		8 oz
VOC-BTEX 8020 Image: Control of the contr	PESTICIDES						TOTAL METALS		1 liter		8 oz
TSS 250 ml TOC 500 ml 4 oz	HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
TOC 500 ml 4 oz	VOC-BTEX 8020	1					TDS	TDS 250 ml			
							TSS		250 ml		
TCLP 2 liters 2 x 8 oz							тос		500 ml		4 oz
							TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/18/93			S/	AMPLE	ID: BTR-LF	-03-SW03				
RADAR STATION: B)'s°F			
SITE/AOC: POL Cate								MAGNETIC HE	ADIN	G: <u>80°</u>
FIXED POINT: Interse										
SAMPLE MATRIX:	SAMPLE MATRIX: ☐ Soil (S) ☐ Sediment (SD) ■ Surface Water (SW) ☐ Groundwater (GW)									
SAMPLERS: RO, M										
	TIME SAMPLED: 15:05 DEPTH OF SAMPLE (feet): Surface water 16" deep									
	SAMPLE DESCRIPTION/COMMENTS: Small water filled depression along southern end of 2-inch drainage pipeline. Sample									
media is mud, vegeta			. Nor	th of PC	OL catchme	nt basin.				
SAMPLING METHOD							····			(
QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes										
Trip Blank (TB) Duplicate of Water Sample ID										
☐ Ambient Condition	n Blank (Al	B) LIR	.eplica	te of Sc	oil Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	IDUCTIV	∕ ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ .	TURBIDITY
15:13	6.9		1,000)		8°C				<0.0001
									\exists	
				MON	NITORING F	KEADINGS		1		
	-:- DEAL			n) CG/LEL (%)		HANBY SCREEN	VING			
TIME	PID READ	JING (ppr	m)			(standard/ppm)				
	Į									
BG=Background:	B7=Breath	ina Zone	· BH=	Boreho	NR-No	Readings; HS=Hea		c: S-Sample (etained)
DG - DGC.13. 001.2, 1	J2-0.0a	ing Zone.					iuspace	s, s=sample (unco	itairieu)
			1	CHECK	ANALYSES	S REQUESTED				
		1	BARF	ROW LA	√ B			ANCHORAGE LAB		E LAB
ANALYOFO				TAINITE		-				
ANALYSES	/	 	CON	TAINER	IS	ANALYSES	1	CON		.RS
		W	/ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB						SVOC (8270)	1	1 liter		8 oz
PESTICIDES				_		TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 r	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS	1	250 ml		
						TSS	1	250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
<u> </u>					L					

Preservation:

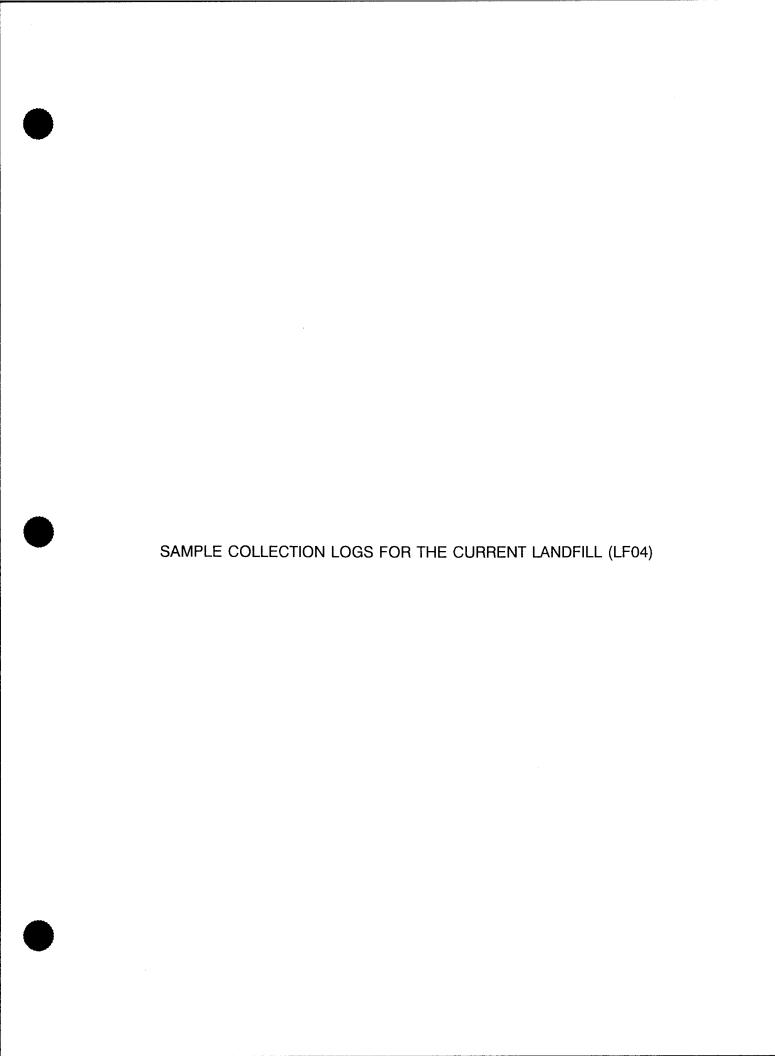
HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:



DATE: <u>8/21/93</u>	3/21/93SAMPLE ID: <u>BTR-LF04-S01</u>										
RADAR STATION: _E											
SITE/AOC: Current Landfill, LF04 FEET FROM FIXED POINT: 10 MAGNETIC HEADING: Western tributary											
FIXED POINT: Confi	luence of fi	rst tributa	ry with	<u>ı draina</u>	ige ditch we	est of LF01, south o	f ocean				
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: PG, JI								******			
TIME SAMPLED: 09	9:40		DE								
SAMPLE DESCRIPTION			ell grad	ded, we	ll sorted fine	e sands. Moist, mod	derate o	rganics. 10 fe	et ups	tream in wes	
direction of tributary											
SAMPLING METHOD											
QA/QC SAMPLES C	OLLECTED										
☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID											
Ambient Condition	n Blank (A	.B) ⊔ R	eplicat	te of So	oil Sample I	D					
				WA	ATER PARA	METERS					
TIME	PH		CON	DUCTIV	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ .	TURBIDITY	
									\top		
	+						+-		+		
MONITORING READINGS											
						HANBY SCREET	VING				
TIME	PID READING (ppm)) CG/LEL (%)		(standard/ppm)	VIII V				
·									\top		
İ			-								
										-	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	ole; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncoi	ntained)	
			11	CHECK	(ANALYSE:	S REQUESTED					
								ANCHORAGE LAB			
		BARROW LA			<u> </u>	4		ANCHURAG		E LAB	
ANALYSES	1		CON	TAINER	is	ANALYSES	1	CONTAIN		ERS	
		w	ATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB	1					SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40 r	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml		***	
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/20/93	SAMPLE ID: <u>BTR-LF04-S02</u>									
	Barter WEATHER: Sunny, windy, cold Landfill, LF04 FEET FROM FIXED POINT: 45 MAGNETIC HEADING: Northwest									
SITE/AOC: Current L	andfill, LF()4	FE	ET FRO	M FIXED F	POINT: 45	_ MAG	ENETIC HEAD	ING: _	Northwest
FIXED POINT: North										
SAMPLE MATRIX:	Soil (S)		Sedimer	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, D	Р									
TIME SAMPLED: 19	9:45		DE	PTH O	F SAMPLE	(feet):				
SAMPLE DESCRIPTI						ate along NW side.	Samp	e was collecte	ed on	north side c
drainage ditch and w				wn area	l					
SAMPLING METHOD				51	-1- (CD)		\/al			
QA/QC SAMPLES CO										
☐ Trip Blank (TB)☐ Ambient Condition						e ID				
Ambient Condition	III DIAIIK (A	D) L.J F	replical	6 01 30	iii Sampie ii					
				WA	TER PARAI	METERS				
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry 1	TURBIDITY
		-								
	- 						 			
				MON	ITORING F	FADINGS	* -			
						<u> </u>	UNIC	<u> </u>		
TIME	PID READ	DING (pp	ım)	CG/LE	EL (%)	HANBY SCREEN (standard/ppm)	MING			
					(/-/					
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
				CHECK	ANALYSES	S REQUESTED				
								ANCLIC		TIAD
			BAHH	ROW LA	'R			ANCHO	JRAGE	LAD
ANALYSES	1		CON	TAINER	S	ANALYSES	>	CON	TAINE	RS
		v	VATER		SOIL		-	WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter	L	8 oz
PESTICIDES	-					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020		1 ^ 40	1111		4 02	TDS		250 ml		
VOO-BIEX COZO		/				TSS		250 ml		
										<u> </u>
						TOC		500 ml	<u> </u>	4 oz
	TCLP					2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8/20/93</u>	SAMPLE ID: <u>BTR-LF04-SD01</u>									
RADAR STATION: B	Barter WEATHER: Partly foggy, cold									
SITE/AOC: Current L						INT: <u>1</u>	_ MA	GNETIC HEAD	ING:	South (true)
FIXED POINT: South	n end of cu	lvert betv	veen L	F01 and	d LF04.					
SAMPLE MATRIX:	☐ Soil (S)	S	Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, DI</u>								***************************************		
TIME SAMPLED: 15										
SAMPLE DESCRIPTION							sludge.	Culvert runs	under	landfill grave
access road. Water SAMPLING METHOD				1 sedim	ent is collec	otea.				
QA/QC SAMPLES CO				ont Pla	nk (CD)	Π 04/00 F	dro Mal			
☐ Trip Blank (TB)	OLLEGIED					e ID				
☐ Ambient Conditio	n Blank (A									
					TER PARA					
TIME	PH		CON	IDUCTIV		1	CDE	CIFIC CDAVI	<u>, Γ</u>	TI IDDIDITY
THVIC	I FN		CON	DUCIN	/II Y	TEMPERATURE	SPE	CIFIC GRAVI	Y	TURBIDITY
	_						<u> </u>			
				MON	NTORING F	EADINGS				
					······································	HANBY SCREET	NING			
TIME	PID REAL	DING (pp	m)	CG/L	EL (%)	(standard/ppm)				
DO Deslaces	D7 D 11									
BG=Background;	BZ=Breatr	ling Zone	e; BH=	Boreno	ole; NH=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BAR	ROW LA	NB			ANCHO	DRAGE	ELAB
ANALYSES	/		CON	TAINEF	RS	ANALYSES	1	CON	TAINE	RS
		W	/ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ	1					SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml	<u> </u>	
						TSS		250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
									·	
		L			L	L	I			L

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/20/93			SAI	MPLE I	D: BTR-LF	04-SD02				
RADAR STATION: B	E Barter WEATHER: Sunny, breezy, cold									
SITE/AOC: Current L	_andfill, LF0)4	FE	ET FR	OM FIXED	POINT: <u>85</u>		MAGNETIC H	HEADI	IG: North
FIXED POINT: Confl	uence of tr	ibutary ar	nd mair	ditch.						
SAMPLE MATRIX: [☐ Soil (S)	■ S	edimen	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, D										
TIME SAMPLED: 19										····
SAMPLE DESCRIPTION	ON/COMMI	ENTS: <u>Sa</u>	ample c	ollecte	d at conflue	nce of tributary from	west lo	cation 85' nort	h of cu	lvert on mai
road.										
SAMPLING METHOD					.					
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)						e ID				
Ambient Condition	n Blank (A	B)	eplicate	e of So	il Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CONE	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ	TURBIDITY
	1						_		_	
										
				MON	UTODING D	FADINGS				
				MON	IITORING R					
TINAT	חום פראנ	NNC (nn		00/15		HANBY SCREET	IING			
TIME	PID READ	MING (ppi	11)	CG/LE	EL (%)	(standard/ppm)				
					· · · · · · · · · · · · · · · · · · ·					
BG=Background:	BZ=Breath	ina Zone	: BH=6	Boreho	le: NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			-							
	<u> </u>	1	/ (CHECK	ANALYSES	S REQUESTED				
			BARR	OW LA	\B			ANCHO	DRAGE	: LAB
ANALYSES	1		CONT	AINER	· · · · · · · · · · · · · · · · · · ·	ANALYSES	1	CON	TAINE	RS
		10/	ATER		SOIL			WATER		SOIL
			AIEN							<u> </u>
TPH	<u>/</u>	1 liter			8 oz	VOC (8260)	/	3 x 40 ml		4 oz
PCB	1					SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40 ı	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
			·			TSS		250 ml		
						TOC	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
91					I	1				

Preservation:

HVOC and VOC: HCI to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 9/03/93 SAMPLE ID: BTR-LF04-2SD03 BADAR STATION: Barter WEATHER: Windy cold clear 2555										
RADAR STATION: Barter WEATHER: Windy, cold, clear, 35°F										
SITE/AOC: Current L									DING:	North (true)
FIXED POINT: 25 fee	et north and	d downst	ream o	of first tr	ributary con	ifluence north of ma	in road	<u> </u>		
SAMPLE MATRIX:	∃ Soil (S)	S	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, D</u>										
TIME SAMPLED: 14						(feet): <u>0-0.5</u>				
SAMPLE DESCRIPTI	ON/COMM	ENTS: Fi	ine sar	nds and	gravels, sa	aturated. No odor o	r conta	mination obse	erved.	
SAMPLING METHOD): Scoop									
QA/QC SAMPLES CO		:	auipm	nent Bla	nk (FB)	☐ QA/QC E>	dra Vol	umes		
☐ Trip Blank (TB)					` '	e ID				
☐ Ambient Conditio	n Blank (Al									
				WA	TER PARA	METERS				
TIME	PH		CON	IDUCTIV		TEMPERATURE	SPE	CIFIC GRAVIT	rv -	TURBIDITY
1100					/ I F I	TEIVII ETATORE	51 2	OI IO GIAVI	-	ווטוטחוו
				MON	IITORING R	READINGS				
						HANBY SCREEN	VING			
TIME	PID READ	JING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
	_									
BG-Background	P7-Breath	ing Zone		Poreho	elo: NID-No	Readings; HS=Hea	-40000	c: C-Cample		-+-:
BG-Background,	DZ-Diean	ing zone	, Dn-	DUIGIO	IE, INN=INO	Readings, no=nea	iospace	a; s=sample	(uncoi	ntaineuj
		,		CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	λ B			ANCHO)RAGE	LAB
ANALYSES			CON	TAINER		ANALYSES	/	CON	ITAINE	RS
, , , , , , , , , , , , , , , , , , , ,	- -	<u></u>			1	AITALIOLO				
			ATER		SOIL	<u> </u>		WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB				ļ		SVOC (8270)		1 liter		8 oz
PESTICIDES				1		TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020 ✓						TDS		250 ml		
						TSS		250 ml		40 48 W
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
		<u> </u>				TPH	1			-

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 9/03/93 SAMPLE ID: <u>BTR-LF04-2SD04</u>										
	ADAR STATION: Barter WEATHER: Windy, cold, 35°F									
SITE/AOC: Current										
FIXED POINT: 130 fe	et due wes	t and ups	tream	of first t	ributary nor	th of main road and t	30 feet i	north of north I	bound	ary of curren
landfill										
SAMPLE MATRIX: [Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>JM, D</u>										
TIME SAMPLED: 14										h
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>H</u>	igh org	ianic ma	iterial and tu	indra material. No o	or or s	neen observe	a. Gar	bage presen
in vicinity. SAMPLING METHOR): Scoop									
QA/QC SAMPLES C)· [] [auinm	ent Blar	nk (EB)	☐ QA/QC E>	tra Vol	umes		
☐ Trip Blank (TB)	OLLLOTEL					e ID				
☐ Ambient Condition	n Blank (A									
			·····							
	1				TER PARA	METERS	1			
TIME	PH		CON	IDUCTI	/ITY	TEMPERATURE S		SPECIFIC GRAVITY		TURBIDITY
				MON	ITORING F	READINGS				
						HANBY SCREET	NING			
TIME	PID REAL	DING (pp	ım)	CG/LEL (%)		(standard/ppm)				
	11 2112 1 21 11 11 11 11 11									
BG=Background:	BZ=Breath	nina Zone	e: BH=	Boreho	ie: NR=No	Readings; HS=Hea	adspac	e: S=Sample	(unco	ntained)
[3						·		
		1		CHECK	ANALYSE	S REQUESTED				
			BAR	ROW LA	∖B			ANCHO	DRAGE	LAB
ANALYSES	1		CON	ITAINEF	RS	ANALYSES	1	CON	ITAINE	RS
AIVALIOLO		,,			T	7117121020	•			SOIL
	 	V	VATER		SOIL			WATER		SUIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml	Ĺ	4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
						TPH				

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8/20/93</u>												
RADAR STATION: Barter WEATHER: Sunny, breezy, cold												
SITE/AOC: Current I							MAGN	ETIC HEADING	3: <u>So</u>	uth (true)		
FIXED POINT: Souti	h end of cu	ılvert betv	veen L	.F01 an	d LF04 (see	e map).						
SAMPLE MATRIX: [` '	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: PG, D)	<i>"</i>				******		
TIME SAMPLED: 15						(feet): Surface Wa						
SAMPLE DESCRIPTI	ON/COMM	IEN 15: <u>C</u>	iouay,	prown,	nighly odif	erous. Readings no	ot taken	due to high c	rganic	content.		
SAMPLING METHOD	D: <u>Dedicate</u>	ed beaker	<u> </u>									
QA/QC SAMPLES C	OLLECTED): 🗆 E	:quipm	ient Bla	ınk (EB)	☐ QA/QC E	ktra Vol	umes				
☐ Trip Blank (TB)			uplica	te of W	ater Sample	e ID						
☐ Ambient Condition	on Blank (A											
				WA	ATER PARA	METERS						
TIME	PH		CON	DUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ	TURBIDITY		
				MON	NITORING F	READINGS						
			;			HANBY SCREE	NING					
TIME	PID READ	DING (pp	m)	CG/LI	EL (%)	(standard/ppm)						
BG=Background:	BZ=Breath	ina Zone	: BH=	Boreho	ole: NR=No	Readings; HS=He	adspac	e: S=Samnie	(unco	ntained)		
							дорио	o, c-oampie	(01100	namou)		
	 	T.		CHECK	ANALYSE	S REQUESTED		Г				
			BARF	ROW LA	AΒ			ANCHO	RAGE	E LAB		
ANALYSES	1		CON	TAINEF	RS	ANALYSES	1	CON	TAINE	RS		
		w	/ATER		SOIL			WATER		SOIL		
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz		
PCB	1					SVOC (8270)	1	1 liter		8 oz		
PESTICIDES						TOTAL METALS	1	1 liter		8 oz		
HVOC 8010												
VOC-BTEX 8020	1			1		TDS	1	250 ml				
	TSS ✓ 250 ml											
	TOC ✓ 500 ml 4 oz											
						TCLP		2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/20/93 SAMPLE ID: BTR-LF04-SW02											
RADAR STATION: Barter WEATHER: Sunny, windy, cold											
SITE/AOC: Current L											
FIXED POINT: Appro	oximate cor	nfluence (of stre	ams (~	85' north o	f main road). Samp	le is ~	30 feet up tri	outary	(see map).	
SAMPLE MATRIX:	` '	□s	edime	nt (SD)	= :	Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: PG, DF		·				<i></i>					
TIME SAMPLED: 19							<u>er</u>				
SAMPLE DESCRIPTION	ON/COMM	ENIS: <u>W</u>	vater s	ample I	nas odor pr	esent					
SAMPLING METHOD): Direct in	bottle									
QA/QC SAMPLES C	OLLECTED	D: 🗆 E	quipm	ent Blar	nk (EB)	☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)						e ID					
☐ Ambient Conditio	n Blank (Al										
				WA	TER PARAI	METERS					
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	7 7	TURBIDITY	
							<u> </u>				
				MON	IITORING R	EADINGS		1			
TIME	חום פראר	NNC /nn	\	CG/LE	EL (0/)	HANBY SCREEN (standard/ppm)	NING				
TIME	PID READ	лич (ррі	111)	CG/LE	EL (%)	(Standard/ppin)			_		
										- 4 - : 4\	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntaineo)	
			1	CHECK	ANALYSES	S REQUESTED					
			BARF	ROW LA	∖B			ANCHO	DRAGE	LAB	
ANALYSES	1		CON	TAINER	IS	ANALYSES	1	CON	TAINE	RS	
		w	/ATER		SOIL			WATER	******	SOIL	
TPH	1	1 liter	.**.		8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
РСВ	1					SVOC (8270)	1	1 liter		8 oz	
PESTICIDES	1					TOTAL METALS	1	1 liter		8 oz	
HVOC 8010	1	1 x 40	ml	1	4 oz	DISS METALS	1	1 liter			
VOC-BTEX 8020	1			1		TDS	1	250 ml			
						TSS	1	250 ml			
						тос	1	500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9/01/93</u>			SAMPLE	ID: BTR-LE	F04-2SW01					
RADAR STATION: _E	l: Barter WEATHER: Cloudy, cool 40°F									
SITE/AOC: Current	Landfill, LF	04	FEET FR	OM FIXED I	POINT:	N	AGNETIC HE	ADING	à:	
FIXED POINT: Sout	h end of cu	ilvert betwee	n LF <mark>01</mark> an	d LF04 (see	e map).					
SAMPLE MATRIX: [☐ Soil (S)	☐ Sedi	ment (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>PG, J</u>			~							
TIME SAMPLED: 1	4:50		DEPTH C	F SAMPLE	(feet): Surface Wat	er				
SAMPLE DESCRIPT	ION/COMM	IENTS: <u>Clea</u>	r, cold, cla	oudy, brown	n, highly odiferous.	Readir	ig not taken d	ue to	<u>high organi</u>	
content.										
SAMPLING METHO				······································						
QA/QC SAMPLES (COLLECTE									
☐ Trip Blank (TB)	D1 1 /4	□ Dupl	icate of W	ater Sample	e ID					
☐ Ambient Condition	on Blank (A	B) L Repl	icate of S	oil Sample I	D					
			WA	TER PARA	METERS				· · · · · · · · · · · · · · · · · · ·	
TIME	PH	C	ONDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ 7	TURBIDITY	
14:51	7.5	98	30		3°C					
							•			
			MON	NITORING F	READINGS					
			1		HANBY SCREET	UNC				
TIME	PID READ	DING (ppm)	CG/L	EL (%)	(standard/ppm)	NING				
								_		
							<u> </u>			
BG=Background;	BZ=Breath	ning Zone; B	H=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)	
			✓ CHECK	(ANALYSE	S REQUESTED					
		BA	ARROW L	AΒ			ANCHO	RAGE	LAB	
ANALYSES	/	C	ONTAINE	RS	ANALYSES	1	CON	TAINE	RS	
		WAT	ER	SOIL			WATER		SOIL	
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ		1			SVOC (8270)		1 liter		8 oz	
PESTICIDES		1			TOTAL METALS		1 liter		8 oz	
HVOC 8010										
VOC-BTEX 8020	-	1	" "	TDS		250 ml				
					TSS		250 ml			
					TOC		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	
	1001 2 inters 2 x 0 02									
1	1	1		i .	1		1			

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9/01/93</u>			SA	AMPLE !	ID: BTR-LF	04-2SW02				
RADAR STATION: Barter WEATHER: Cloudy, cold 40°F										
SITE/AOC: Current L									DING:	South (true
FIXED POINT: Confl	uence of se	<u>outhern t</u>	ributar	y and m	nain stream	(about 85' north of	main r	oad).		
SAMPLE MATRIX:			3edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG. JM</u>										
TIME SAMPLED: 14										
SAMPLE DESCRIPTION	ON/COMM	ENTS: _C	Conflue	ence of	tributary lea	iding to main chann	el, (~7	'5 feet north of	f main	road).
SAMPLING METHOD): Scoop									
QA/QC SAMPLES C				ent Bla	nk (FR)	□ OA/OC E	tra Vol	umes		
☐ Trip Blank (TB)	OLLLOILL					e ID				
☐ Ambient Conditio	n Blank (A									
		-	10 01100							
	T		<u> </u>		TER PARA	<u> </u>	1			
TIME	PH		CON	IDUCTIV	/ITY 	TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY
15:00	7.5		470			4°C				
				MON	ITORING R	FADINGS				
				11101			UNIC		<u> </u>	
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	HANBY SCREET (standard/ppm)	NING			
		(1-1-								
									<u> </u>	
				_						
BG=Background;	BZ=Breath	ing Zone	∍; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	REQUESTED				
			BARF	ROW LA	 \В			ANCHO	RAGE	LAB
ANALYSES			CON	ITAINER	RS.	ANALYSES	1	CON	TAINE	
ANALTSES	/				1	ANALISES	<i>y</i>		., 1	SOIL
		<u> </u>	VATER		SOIL	<u> </u>		WATER		
TPH	✓	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
					TSS		250 ml			
						тос		500 ml		4 oz
TCLP 2 liters 2 x 8 oz							2 x 8 oz			
IL					t	I		i		L

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9/03/93</u>	SAMPLE ID: BTR-LF04-2SW03									
RADAR STATION: B	Barter WEATHER: Windy, cold, 35°F Landfill, LF04 FEET FROM FIXED POINT: 25' north and downstream MAGNETIC HEADING:									
SITE/AOC: Current L	andfill, LF0	04	FE	EET FRO	OM FIXED I	POINT: 25' north ar	nd dow	nstream MAC	GNETI	C HEADING
FIXED POINT: Confli	uence sou	thern tribu	utary a	ınd of n	nain stream	(about 25' north of	main r	oad).		
SAMPLE MATRIX:] Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JM	, DP									
TIME SAMPLED: 14										-19
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>CI</u>	lear, co	old, no	odor or she	en observed.				
							·			······································
SAMPLING METHOD										
QA/QC SAMPLES C	OLLECTE									
☐ Trip Blank (TB)	n Dlank /A	D □	uplicat	te of W	ater Sample	e ID		·		
Ambient Condition	n Biank (A	в) 🗆 н	eplicat	te of Sc	Sample II	<u> </u>				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
14:10	8.1		626			4°C				
							 			
				MON	IITORING R	EADINGS				
						HANBY SCREEN	VING			
TIME	PID READ	JING (ppr	m)	CG/LE	∃L (%)	(standard/ppm)				
<u> </u>										
BG=Background; E	3Z=Breath	iing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	REQUESTED				
			BARF	ROW LA	AB			ANCHO)RAGF	
			-			:				
ANALYSES			CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		W	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES				í		TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 r	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	✓ 1×40 mil				TDS		250 ml			
						TSS		250 ml		
					TOC		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz
								L intolo		EX O GE
						TPH	1			

Preservation:

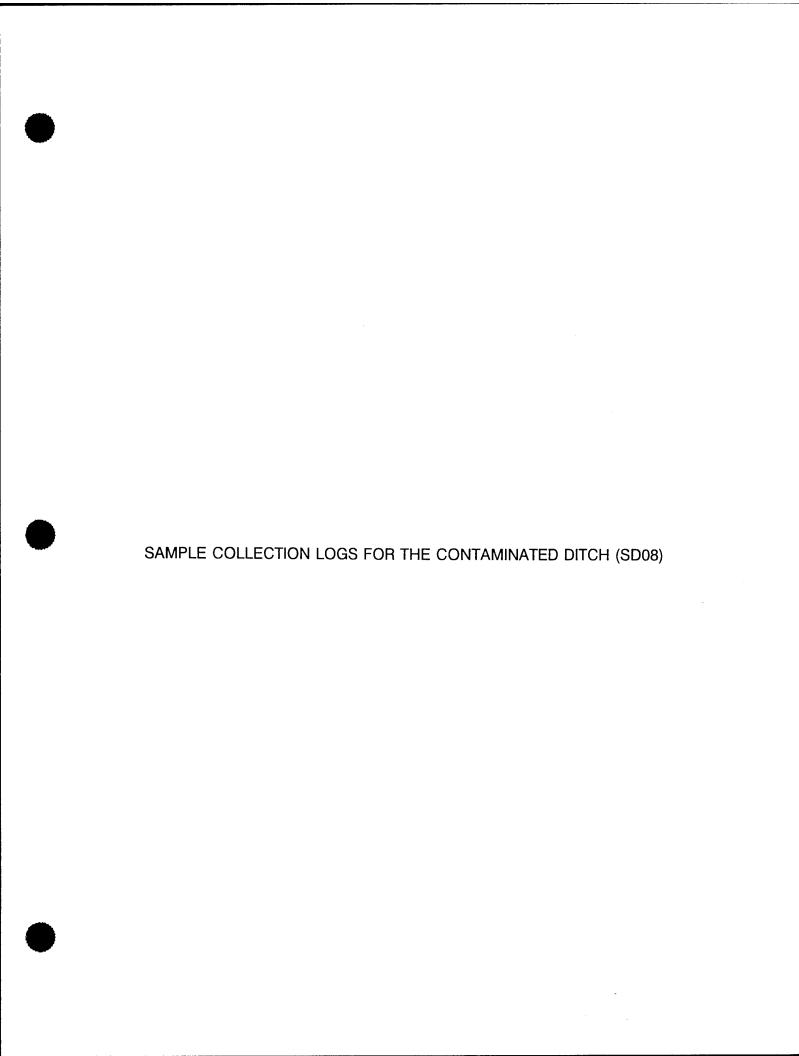
HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:



DATE: <u>08/16/93</u>		s	AMPLE	ID: BTR-SI	008-S01-3					
RADAR STATION: Barter WEATHER: Sunny, clear, windy, 45°F										
SITE/AOC: Contami	nated Ditch	<u>, SD08</u> FE	ET FRO	M FIXED P	OINT: <u>16.5'</u>	N	AGNETIC HEA	ADING	: East (true)	
FIXED POINT: 16.5	feet east of	warehouse bu	uilding's	seventh pili	ing from south end.			~··		
SAMPLE MATRIX: 🛮	Soil (S)	☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>PG, JI</u>										
TIME SAMPLED: 1					(feet): ~3 feet					
SAMPLE DESCRIPTI						arse gr	ained sandy m	atrix.	Dark staining	
and heavy petroleum SAMPLING METHOD			ı, sampı	e RTH-SD08	3-810.					
QA/QC SAMPLES C			nent Bla	enk (FR)	☐ QA/QC E	dra Vol	umae		·	
Trip Blank (TB)	OLLLOTED				e ID	illa VOI	unies			
☐ Ambient Condition	n Blank (A						***************************************			
WATER PARAMETERS										
TIME	PH	CON	NDUCTIV	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	v -	TURBIDITY	
		- 1001	100011		TEWITENATORE	JOFE	OFIC GRAVII	' -	IUNDIDITT	
			MON	NITORING F	READINGS					
					HANBY SCREET	JING				
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)					
13:57	BZ=0		0		NR					
13:58	HS=157p	ppm	0		NR					
BG=Background	B7=Breath	ing Zone: BH:	-Boreho	ole: NR-No	Readings; HS=Hea	denac	a: S-Sample /	· · · · · ·	otained)	
l		9 20110, 011		710, 1111—110	Ticadings, Tic—Fice	aspac	c, 0=0ample (unco	itairied)	
		√	CHECK	ANALYSES	S REQUESTED					
		BAR	ROW LA	AB			ANCHO	RAGE	E LAB	
ANALYSES	1	CON	TAINEF	RS	ANALYSES	1	CON	TAINE	RS	
		WATER	}	SOIL			WATER		SOIL	
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB					SVOC (8270)		1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	DISS METALS	,	1 liter						
VOC-BTEX 8020	OC 8010						250 ml			
TSS						250 ml				
					тос		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	
TOLI ZINEIS ZX 8 0Z										

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/17/93			SAMPLE	ID: BTR-SI	D08-S02-3						
RADAR STATION: Barter WEATHER: Sunny, clear, windy, 45°F											
SITE/AOC: Contami			_								
FIXED POINT: Samp	le collected	d 3 feet cent	trally north c	of concrete p	oad located 10 feet fr	om nor	theast corner c	f war	<u>ehouse WH1</u>		
SAMPLE MATRIX:	Soil (S)	☐ Sec	diment (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: PG, J	<u>M</u>										
TIME SAMPLED: 14			_		, ,						
SAMPLE DESCRIPTI											
and heavy petrol odd				odor. Pho	to 34 is erroneous p	hoto. l	Jse photo 35 fo	or sar	nple location		
Location between bu									·		
SAMPLING METHOD											
QA/QC SAMPLES C	OLLECTED	•		, ,	☐ QA/QC E						
☐ Trip Blank (TB)	51				e ID						
☐ Ambient Condition	on Blank (A	B) L Rep	olicate of So	oil Sample I	D						
			WA	TER PARA	METERS						
TIME	PH	(CONDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY		
1											
			10M	NITORING F	READINGS		1	I			
TIME	PID REAL	DING (ppm)) CG/LI	EL (%)	HANBY SCREET (standard/ppm)	NING					
14:40	BZ=0		0		NR						
14:42	BH=317		0		NR						
BG=Background;	BZ=Breath	ing Zone; I	BH=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample (unco	ntained)		
			✓ CHECk	ANALVSE	S REQUESTED						
	1	l		***************************************	T	<u> </u>	4410110	D 4 C	- 1 4 D		
		<u> </u>	BARROW LA				ANCHO	HAGI	= TAR		
ANALYSES	1		CONTAINER	RS	ANALYSES	1	CONT	TAINE	RS		
		WA ⁻	TER	SOIL			WATER		SOIL		
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz		
PCB					SVOC (8270)		1 liter		8 oz		
PESTICIDES					TOTAL METALS		1 liter		8 oz		
HVOC 8010	1	1 x 40 m	ı	4 oz	DISS METALS		1 liter				
VOC-BTEX 8020 ✓ TDS 250 ml											
					TSS		250 ml		***		
					TOC		500 ml		4 oz		
					TCLP		2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/17/93</u>			SAI	MPLE I	D: BTR-SE	008-S03-3.5				
ATE: 08/17/93 SAMPLE ID: BTR-SD08-S03-3.5 ADAR STATION: Barter WEATHER: Sunny, clear, windy, 45°F ITE/AOC: Contaminated Ditch, SD08 FEET FROM FIXED POINT: 25 MAGNETIC HEADING: NW										
SITE/AOC: Contamin	nated Ditch	, SD08	FE	ET FR	OM FIXED	POINT: <u>25</u>	(MAGNETIC HE	ADIN	G: <u>NW</u>
FIXED POINT: Locat										
SAMPLE MATRIX:	Soil (S)	☐ Se	edimen	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JM										
TIME SAMPLED: 14						` '	·			
SAMPLE DESCRIPTION							. Samı	ole is photo 36	. Sar	nple location
due north (true) of So				and D	LM buildin	g				
SAMPLING METHOD	-							×		
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)	5 : //					e ID				
Ambient Conditio	n Blank (Al	B) ∐ Re	plicate	e of So	il Sample II)				
				WA	TER PARAI	METERS				
TIME	PH	}	COND	DUCTIV	/ITΥ	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
							1		\dashv	
	_			· · · · · · · · · · · · · · · · · · ·			 		+	
	 						-			
				MON	ITORING R	EADINGS				
			T			HANBY SCREEN	JING			
TIME	PID READ	DING (ppm	۱)	CG/LE	EL (%)	(standard/ppm)	11110			
14:56	BZ=0 ppi	m		0		NR				
14:57	BH=10 p	pm		0		NR				
BG=Background;	BZ=Breath	ina Zone;	BH=E	Boreho	le: NR=No	Readings; HS=Hea	ndspace	e: S=Sample (unco	ntained)
								J, O = 0 = 0 = 0	WI	11011120)
			<i>7</i> U	HEUN	ANALYSES	S REQUESTED				
			BARR	OW LA	.B			ANCHO	RAGE	E LAB
ANALYSES			CONT	AINER	S	ANALYSES.	1	CON	TAINE	RS
		WA	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 m	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/17/93</u>			S	AMPLE	ID: <u>BTR-S</u> [008-S04-2.5				
RADAR STATION: B	arter		w	EATHER	R: Sunny, I	oreezy, 40°F				
SITE/AOC: SD08, Di	tch Source)	_ FE	EET FRO	OM FIXED F	POINT: <u>28', 11.5'</u>		MAGNETIC H	IEADIN	G: <u>N/A</u>
FIXED POINT: From	southeast	corner o	f WH7	, locatio	n is 28' noi	th and 11.5' east (tr	ue).			
SAMPLE MATRIX:	Soil (S)		Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JN										
TIME SAMPLED: 15						(feet): 2.5 below st				
SAMPLE DESCRIPTION							arse gr	ained sandy m	natrix.	Dark staining
of heavy petrol odor.			petrol	eum od	or present i	n cuttings.				
SAMPLING METHOD QA/QC SAMPLES CO	,			ant Pla	nk (ED)	Π 04/0C E ₂	tra Vol	umoe		
☐ Trip Blank (TB)	OLLEGIED					e ID		uilles		
☐ Ambient Condition	n Blank (A									
	1			WA	TER PARA	METERS	1		I	
TIME	PH		CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	TY 1	URBIDITY
				MON	IITORING P	EADINGS	<u> </u>		!	
				WICH	inomiva i			I	\neg	
TIME	PID REAL	DING (pp	m)	CG/LE	EL (%)	HANBY SCREET (standard/ppm)	NING			
14:59	BZ=0			0		NR				
15:01	BH=100	ppm		0		NR				
15:10	BZ=0									
BG=Background;	BZ=Breath	ning Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
			/	CHECK	ANALYSES	S REQUESTED				
				ROW LA				ANCHO	DRAGE	LAB
ANALYSES	/	<u> </u>	CON	ITAINER	15 T	ANALYSES	1	CON	ITAINE	no
		<u> </u>	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
11					i .	<u> </u>				

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/17/93</u>			SA	MPLE	ID: BTR-SI	D08-S05-3				
ATE: 08/17/93 SAMPLE ID: BTR-SD08-S05-3 ADAR STATION: Barter WEATHER: Sunny, windy, clear, 45°F ITE/AOC: SD08, Ditch Source FEET FROM FIXED POINT: 100 MAGNETIC HEADING: South (true)										
SITE/AOC: SD08, D	itch Source	Э	 _ FE	ET FRO	OM FIXED F	POINT: 100	MA	AGNETIC HEA	DING:	South (true
FIXED POINT: 100 f										
SAMPLE MATRIX:						Surface Water (SW)		Groundwater		
SAMPLERS: <u>PG, JI</u>		7/12							·	
TIME SAMPLED: 16	6:14		DE	EPTH O	F SAMPLE	(feet): Collected a	t 3 feet.			
SAMPLE DESCRIPTION									P bay	doors. Photo
1 is of sample location	on.									
SAMPLING METHOD										
QA/QC SAMPLES C	OLLECTED									
☐ Trip Blank (TB)		☐ D ₁	uplicat	te of W	ater Sample	e ID				
☐ Ambient Condition	n Blank (A	.B) 🗌 Re	eplicat	e of Sc	oil Sample II	D				
				WA	TER PARA	METERS			-	
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ .	TURBIDITY
							+		<u> </u>	
					· · · · · · · · · · · · · · · · · · ·		-		-	
	 						<u> </u>	· · · · · · · · · · · · · · · · · · ·		
				лОМ	NITORING R	READINGS				
						HANBY SCREEN	UING	l		
TIME	PID REAL	DING (ppn	n)	CG/LE	∃L (%)	(standard/ppm)	VIIVG			
16:10	BH=5			0		NR				
16:12	BZ=0	******		0		NR				
BG=Background:	R7=Breath	ning Zone		Boreho	NO NR-NO	Readings; HS=Hea	donac	c: SSample :		-tainad\
54-540g. 53,	D2-D104	mig 20110,					duspaci	3; 3=3ample	uncoi	Itaineu)
		Т		CHECK	ANALYSES	S REQUESTED				
			BARR	ROW LA	л В			ANCHO	RAGE	E LAB
ANALYSES	1		CONT	TAINER	is	ANALYSES	1	CON	TAINE	RS
		W	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 n	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1	, , ,	```		4 02					
700 5127 5525				L		TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/18/93</u>		S	AMPLE	ID: <u>BTR-St</u>)08-S06-2						
RADAR STATION: B	arter	v	VEATHE	R: <u>Sunny, v</u>	vindy, clear, 45°F						
SITE/AOC: Ditch So	urce, SD08		FEET FF	ROM FIXED	POINT: <u>50</u>		MAGNETIC	HEADI	NG: <u>East</u>		
FIXED POINT: North	of northea	st corner of D	LM ware	house, 50 f	eet east of catchme	nt basi	n				
SAMPLE MATRIX:		☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: PG, JM					((, () , (, 5, 0, 0)						
TIME SAMPLED: 10											
SAMPLE DESCRIPTI	ON/COMM	ENIS: Dark t	orown sil	t and clay id	oam, moist, nigh or	ganic c	ontent.				
SAMPLING METHOD): <u>Hand au</u>	iger, scoop									
QA/QC SAMPLES CO	OLLECTED	: 🗌 Equipr	nent Bla	nk (EB)	☐ QA/QC E	tra Vol	umes				
☐ Trip Blank (TB)		□ Duplic	ate of W	ater Sample	e ID						
☐ Ambient Conditio	n Blank (A	B) 🗌 Replic	ate of So	oil Sample II	O						
			WA	TER PARA	METERS						
TIME	PH	COI	NDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	ry -	TURBIDITY		
						ļ					
			МОМ	NITORING R	EADINGS						
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	HANBY SCREET (standard/ppm)	NING	:				
10:57	BH=0		0		NR						
10:58	BZ=0		0		NR						
BG=Background;	BZ=Breath	ing Zone; BH:	=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)		
		/	CHECK	(ANALYSE	S REQUESTED						
		BAF	ROW L	∖ B			ANCHO	DRAGE	E LAB		
ANALYSES	1	COI	NTAINEF	RS	ANALYSES	1	CON	TAINE	RS		
		WATER	3	SOIL			WATER		SOIL		
ТРН	1	1 liter	1.00	8 oz	VOC (8260)		3 x 40 ml		4 oz		
PCB					SVOC (8270)		1 liter		8 oz		
PESTICIDES					TOTAL METALS		1 liter		8 oz		
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	VOC-BTEX 8020 ✓ TDS 250 ml										
					TSS		250 ml				
					тос		500 ml		4 oz		
					TCLP		2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 08/18/93			SA	AMPLE	ID: BTR-SI	008-S07-3				
RADAR STATION: E										
SITE/AOC: Ditch So	ource, SD08	3	FE	EET FRO	OM FIXED F	POINT: 10		MAGNETIC HE	EADIN	G: Westerly
FIXED POINT: Ware	house (Wh	H1) source	e pipe	measu	red perpen	dicular to building w	all.	,		
SAMPLE MATRIX:		□s	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, JI</u>										
TIME SAMPLED: 1										
SAMPLE DESCRIPTI						<u>bebbles and gravel i</u>	n a me	dium-coarse g	rained	sand matrix
light brown, moist, consideration SAMPLING METHOD				pie for p	iume.					
QA/QC SAMPLES C				ent Bla	nk (ER)		dra Vol	umoe		
☐ Trip Blank (TB)	OLLLOILL					e ID				
☐ Ambient Condition	n Blank (A	.B) □ R	eplica	te of So	oil Sample I	D				
					TER PARA					
TIME	PH		CON	DUCTI		TEMPERATURE	SPE	CIFIC GRAVIT	γ .	TURBIDITY
							1			
							-			
							-			
	*			MON	IITORING F	READINGS				
						HANBY SCREE	NING			
TIME	PID REAL	DING (ppi	m)	CG/L	EL (%)	(standard/ppm)				
11:29	BH=0 pp	om		0		NR				
11:30	BZ=0 pp	m		0		NR				
BG=Background;	BZ=Breath	ning Zone	; BH=	Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
						S REQUESTED				
				ROW LA				ANCHO	PAGE	E LAB
						-				
ANALYSES			CON	TAINER	RS	ANALYSES	1	CON	TAINE	RS
		W	ATER		SOIL	I .		WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 r	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
					-					

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/17/93</u>			SA	AMPLE	ID: <u>BTR-SI</u>	008-S10-3				
RADAR STATION: E	Barter		w	EATHE	R: Sunny,	warm, windy, 45°F				
SITE/AOC: Contami	nated Ditch	, SD08	F8	EET FRO	OM FIXED F	POINT: 16.5'	M	IAGNETIC HE	ADING	a: <u>East (true</u>
FIXED POINT: 16.5	feet east of	warehou	use bu	ilding (V	VH1),					
SAMPLE MATRIX:	Soil (S)		Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JI	М									
TIME SAMPLED: 1					F SAMPLE	` '				
SAMPLE DESCRIPTI									natrix.	Dark staining
and heavy petrol odd				s 13:55	so that rep	olicate is not incicate	d to la	O		
SAMPLING METHOD										
QA/QC SAMPLES C	OLLECTED					☐ QA/QC E	tra Vol	umes		
☐ Trip Blank (TB)					•	e iD				
☐ Ambient Condition	on Blank (A	B) 🔳 F	Replica	te of Sc	il Sample I	D_BTR-SD08-S01-3				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	ΓΥ .	TURBIDITY
111112	+		0011			TEIVIT ETT (TOTTE			-	
							1			
				MON	IITORING F	READINGS		T	<u>-</u>	
						HANBY SCREET	NING			
TIME	PID REAL	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
13:57	BZ=0			0		NR				
13:58	HS=157			0		NR				
BG-Background	B7=Breath	ina Zone	· BH-	Boreho	le: NR-No	Readings; HS=Hea	adspace	e: S=Sample	(unco	ntained)
Ba-Background,	DZ-Break	ing Zone	, Di i-	Bolcho	10, 1111-110	ricadingo, rio—rioc	аорао	5, 0 – Gampio	(0.100)	
			1	CHECK	ANALYSE	S REQUESTED				
			BAR	ROW LA	ΛB			ANCHO	DRAGE	E LAB
45141.7050			CON	TAINER	10	ANALY050		CON	TAINE	:BS
ANALYSES				TAINLI	ł	ANALYSES	<i>,</i>			1
		٧	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS	-	250 ml		
						тос		500 ml		4 oz
				,,		TCLP		2 liters		2 x 8 oz
L		L			<u> </u>	1				L

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/02/93</u>			SA	MPLE	ID: BTR-SE	008-2S11-3.5				
RADAR STATION: B										
SITE/AOC: SD08-Dit	ch Source			FEET F	ROM FIXED	POINT: <u>168</u>		MAGNETIC	HEAD	ING: South
FIXED POINT: SE co	orner found	ation pos	st of D	LM buil	ding. Cont	amination observed	at 125	' from fixed po	oint at	3' depth
SAMPLE MATRIX:	` '	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, M										
TIME SAMPLED: 15		•					DTD 01	200 0040		
SAMPLE DESCRIPTI	ON/COMM	EN15: 5	ands,	gravei,	tili material	Same location as	BIH-SI	<u> </u>		
SAMPLING METHOD): Hand au	iger, disp	osable	scoop						
QA/QC SAMPLES CO	OLLECTED	: 🗆 E	quipm	ent Bla	nk (EB)	☐ QA/QC E	tra Vol	umes		
☐ Trip Blank (TB)						e ID				
☐ Ambient Conditio	n Blank (A	B) 🗆 R	eplicat	te of Sc	oil Sample II	D				
					TER PARA					
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry 1	TURBIDITY
				_						
				MON	IITORING F	EADINGS				
						HANBY SCREET	NING			
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
15:10	BZ=0			0		NR				
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			✓ (CHECK	ANALYSE	S REQUESTED				
			BARE	ROW LA	λB			ANCHO	DRAGE	LAB
ANALYSES	1		CON	TAINER	ıs	ANALYSES	1	CON	ITAINE	RS
		W	/ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
				-		TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/02/93</u>			SA	AMPLE I	D: BTR-SI	008-2S12-4.5				
RADAR STATION: B	Barter		w	EATHER	R: Cloudy,	rain, 30°F				
SITE/AOC: SD08-Dit	tch Source	FI	EET FF	ROM FIX	KED POINT	: <u>168</u>	MAGN	NETIC HEADIN	IG: <u>18</u>	30° (South)
FIXED POINT: The s	southeast c	orner fou	ındatio	n post d	of the DLM	building.				
SAMPLE MATRIX:	` '	□ s	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, M</u> TIME SAMPLED: <u>1</u> 5			D.		E CAMPLE	(foot): 4.5				
SAMPLE DESCRIPTION							Media	had a promina	ent pet	roleum odor
Sands, gravel, fill ma		LIVIO. <u>O</u>	апре	CONCOLO	d in the sai	ne location as 2011.	Wiodia	ridd a protimie		
SAMPLING METHOD		aer disc	osable	e scoop						
QA/QC SAMPLES C						□ OA/OC Ex	tra Vol	umes		
☐ Trip Blank (TB)	OLLLOILD					e ID				
☐ Ambient Condition	n Blank (ΔI									
Ambient Condition	II DIAITIK (AI	D) L1	ieplica		on ourriple i					
	_			WA	TER PARA	METERS	T			
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 1	TURBIDITY
						-				
		j	:							
				MON	IITORING F	READINGS				
						HANBY SCREEN	NING			
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)			_	
									ł	
BG=Background;	BZ=Breath	ing Zone	 e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
						S REQUESTED				
				ROW LA		l la la la la la la la la la la la la la		ANCHO	RAGE	
			וואט	1000		<u> </u>				
ANALYSES	1		CON	TAINER	IS	ANALYSES	1	CON	TAINE	RS
		W	/ATER		SOIL			WATER	·	SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1			<u> </u>		TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/02/93</u>			SAMPLE	ID: BTR-SI	008-2813-3.5						
RADAR STATION: _B	ON: Barter WEATHER: Raining, 30°F										
	C: SD08-Ditch Source FEET FROM FIXED POINT: 100 MAGNETIC HEADING: ~90°										
FIXED POINT: 100 f											
SAMPLE MATRIX:	Soil (S)	☐ Sedim	nent (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: RT, PC	G, ML, JM,	DP					<u></u>				
TIME SAMPLED: 10											
SAMPLE DESCRIPTI	ON/COMM	IENTS: Sand	and gra	vel fill. Initi	al Hanby sample in	dicates	slight contam	inatio	n. Saturated		
sample approximatel											
SAMPLING METHOD											
QA/QC SAMPLES C	OLLECTED					dra Vol	umes				
☐ Trip Blank (TB)					e ID						
☐ Ambient Condition	n Blank (A	B) Replic	ate of So	oil Sample I	D <u>BTR-SD08-2S14-</u>	3.5					
			WA	ATER PARA	METERS						
TIME	PH	СО	NDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY		
						1					
	 		 								
			-								
			MON	NITORING F	EADINGS			,			
					HANBY SCREET	VING					
TIME	PID READ	DING (ppm)	CG/L	EL (%)	(standard/ppm)						
								-			
			<u> </u>								
BG=Background;	BZ=Breath	ing Zone; BH	=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample (unco	ntained)		
			' CHECK	(ANALYSES	S REQUESTED						
		BAF	RROW LA	ΔR			ANCHO	PAGE	IAR		
				·-			ANOITO	HAGE	LAU		
ANALYSES	1	CO	NTAINEF	RS	ANALYSES	1	CON	TAINE	RS		
		WATE	R	SOIL			WATER		SOIL		
ТРН	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz		
PCB					SVOC (8270)		1 liter		8 oz		
PESTICIDES					TOTAL METALS		1 liter		8 oz		
HVOC 8010		1 x 40 mi		4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	1				TDS		250 ml				
					TSS		250 ml				
					тос		500 ml		4 oz		
					TCLP		2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; Ice all samples to $\mathrm{4^{\circ}C}$

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/02/93</u>			SA	MPLE	D: <u>BTR-SC</u>	008-2S14-3.5					
RADAR STATION: B	arter		WI	EATHER	R: Raining,	30°F					
SITE/AOC: SD08-Dit	E/AOC: SD08-Ditch Source FEET FROM FIXED POINT: 100 MAGNETIC HEADING: ~90° ED POINT: 100 feet from southeast corner of A-module train building, 80 feet from westernmost utility pole.										
FIXED POINT: 100 fe	eet from so	utheast o	corner	of A-mo	odule train t	ouilding, 80 feet fron	n weste	ernmost utility	pole.		
SAMPLE MATRIX:	` '		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RT, JM					5 0 4 1 4 D 1 F	(C. 1) O. F.					
TIME SAMPLED: 16					F SAMPLE			in aliantan aliah		omination	
SAMPLE DESCRIPTION	ON/COMM	ENIS: 3	sand a	na grav	ei fill, satura	ated. Initial Hanby s	ampie	indicates sligr	it cont	ammanon.	
SAMPLING METHOD	: Dedicate	ed scoop)								
QA/QC SAMPLES CO	OLLECTED	: 🗆 E	Equipm	ent Bla	nk (EB)	☐ QA/QC E	tra Vol	umes			
☐ Trip Blank (TB)			Duplica	te of W	ater Sample	e ID					
☐ Ambient Conditio	n Blank (A	B) 📕 F	Replica	te of Sc	il Sample II	D_BTR-SD08-2S13-	3.5				
				WA	TER PARA	METERS					
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry 1	rurbidity	
				MON	IITORING R	EADINGS					
						HANBY SCREEN	NING				
TIME	PID REAL	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)					
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)	
			1	CHECK	ANALYSES	REQUESTED					
			BARF	ROW LA	.В			ANCHO	DRAGE	LAB	
ANALYSES			CON	TAINER	ıs	ANALYSES	1	CON	TAINE	RS	
		v	VATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ						SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	
				·							

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/02/93</u>			S/	AMPLE	ID: BTR-SI	008-2815-4				
RADAR STATION: B	arter	****	w	'EATHE	R: Overcas	t, damp, cold				
SITE/AOC: SD08-Dit							MA	AGNETIC HEA	DING:	South (true
FIXED POINT: Post	under mod	lule train 4	43 feet	west of	f southeast	corner. Sample loc	ation is	16 feet perpe	ndicul	ar to building
from of this post.										
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>DP, PC</u>	G, JM									
TIME SAMPLED: 15										
SAMPLE DESCRIPTI	ON/COMM	IENTS: <u>S</u>	ioil is o	clean to	4 feet. Gra	avel fill material.				
SAMPLING METHOD	: Hand a	uger and	scoop	1						
QA/QC SAMPLES C	OLLECTED): 🗆 E	:quipm	nent Bla	nk (EB)	☐ QA/QC E	tra Vol	umes		
☐ Trip Blank (TB)			uplica	te of W	ater Sample	e ID				
☐ Ambient Conditio	n Blank (A	.B) 🗌 R	leplica	te of Sc	oil Sample II	D				
				WA	TER PARAI	METERS				
TIME	PH		CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ .	TURBIDITY
				MON	NITORING R	EADINGS			•	
						HANBY SCREE	JING		T	
TIME	PID REAL	DING (pp	m)	CG/LF	EL (%)	(standard/ppm)	1110			
							.		-	
				L					1	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	ile; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	√B			ANCHO	PRAGE	E LAB
ANALYSES	1		CON	ITAINER	łS	ANALYSES	1	CON	TAINE	RS
		w	/ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	mi		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		***
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/02/93</u>			SA	MPLE I	D: BTR-SD	08-2S16-1				
RADAR STATION: <u>B</u>										
SITE/AOC: Contamir	nated Ditch	, SD08	FE	ET FRO	M FIXED F	OINT: 20	M	IAGNETIC HE	ADING	i: <u>NE</u>
FIXED POINT: 20 fee	et northeas	t of the fo	ourth u	tility po	les at toe o	f berm.				
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>DP, PC</u>	3, JM									
TIME SAMPLED: <u>18</u>										
SAMPLE DESCRIPTION	ON/COMM	ENTS: S	<u>ample</u>	collecte	ed at toe of	<u>berm on east side o</u>	f pad.	Sample collec	ted at	1 foot below
surface. Minor tund				ds and	gravel.					
SAMPLING METHOD							4.00			
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)						ID				-
Ambient Conditio	n Blank (Al	B) LIR	eplica	te of So	il Sample II)				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	URBIDITY
THAC			0011			TENN CANTONIC	 			
					·		<u> </u>			
		1		1401	TODING D	EADINIOO				
				MON	ITORING R	EADINGS		<u> </u>		
	010 0545	NNO (00// 5	-1 (0/)	HANBY SCREEN	IING			
TIME	PID READ	JING (ppr	m)	CG/LE	EL (%)	(standard/ppm)				
BG-Background	B7=Breath	ina Zone	· BH=	Boreho	le: NR=No	Readings; HS=Hea	dspace	e: S=Sample	(uncor	ntained)
Ba-Background,	BZ-Bream	ang zono	, 0,1	Borono	10, 1111—110	Tidadings, 110—1100		-,	(
		,	√	CHECK	ANALYSES	REQUESTED				
			BARF	ROW LA	λB			ANCHO	RAGE	LAB
ANALVOTO			CON	TAINER	<u> </u>	ANALYSES	1	CON	TAINE	RS
ANALYSES	/					ANALISES				r
		. W	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ı	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/16/93</u>											
RADAR STATION: E											
SITE/AOC: Contami	nated Ditcl	n, SD08	FEET FR	OM FIXED	POINT: <u>60</u>	_ MAG	NETIC HEADING	a: <u>S</u> ,	upstream		
FIXED POINT: Log j					· ·						
SAMPLERS: PG, JI		Sedi	nent (SD)) 🗆	Surface Water (SW) 🗆	Groundwater (G	iW)			
TIME SAMPLED: 1			DEPTH (OF SAMPLE	(feet): Sediment 0	-6"					
SAMPLE DESCRIPTI							taining.				
SAMPLING METHOD	D: <u>Spade a</u>	and scoop									
QA/QC SAMPLES C	OLLECTE): 🗆 Equip	ment Bla	ank (EB)	☐ QA/QC E	xtra Vol	umes				
☐ Trip Blank (TB)		Dupli	cate of W	/ater Sampl	e ID						
☐ Ambient Condition	n Blank (A	.B) 🗌 Repli	cate of S	oil Sample l	D						
			W	ATER PARA	METERS						
TIME	PH	CC	NDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVITY	Τι	JRBIDITY		
15:36	8.5	1,2	30		8°C			.0	01		
						+		+			
<u> </u>											
MONITORING READINGS											
TIME	PID REAL	DING (ppm)	CG/L	EL (%)	HANBY SCREE (standard/ppm)	VING					
15:30	BZ=0		0		NR						
15:36	BZ=0		0		NR				-		
BG=Background;	BZ=Breath	ning Zone; BH	l=Boreho	ole; NR=No	Readings; HS=He	adspac	e; S=Sample (un	cont	ained)		
					S REQUESTED			-			
			RROW LA				ANGUAR				
		DA	THOW L	4D			ANCHORA	NGE	LAB		
ANALYSES	1	CC	NTAINER	RS	ANALYSES	1	CONTA	INER	S		
		WATE	R	SOIL			WATER		SOIL		
TPH	/	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz		
PCB					SVOC (8270)	1	1 liter		8 oz		
PESTICIDES					TOTAL METALS	1	1 liter		8 oz		
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	1				TDS		250 ml				
					TSS		250 ml				
					тос	1	500 ml		4 oz		
					TCLP		2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/16/93			SAN	MPLE I	D: BTR-SD	08-SD02				
RADAR STATION: B	arter		WE	ATHER	: Sunny, w	rindy, 40°F				
SITE/AOC: Contamir	nated Ditch,	SD08	_ FEE	ET FRO	M FIXED P	OINT: 210	MAGN	NETIC HEADIN	IG: <u>S</u> ,	Upstream
FIXED POINT: Log ja										ry.
SAMPLE MATRIX:] Soil (S)	Sec	dimen	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, JM</u>	I, RT									
TIME SAMPLED: 16	:29		_ DEF	PTH OF	SAMPLE	(feet): Sediment 0-6	<u>}"</u>	toh Northarn	noot tr	ibutany wos
SAMPLE DESCRIPTION	ON/COMME	ENTS: <u>San</u>	nple Ic	ocation	at converge	ence at tributary and	main d	tch. Northerni	nostti	ibulary, wes
side main stream. SAMPLING METHOD	· Chada a	nd sooon								
QA/QC SAMPLES CO			uiomo	ont Blan	ık (ER)	□ OA/OC Ex	tra Voli	ımes		
☐ Trip Blank (TB)						ID				
☐ Ambient Condition			-							
TATIBIOTIC GOTTONICS	., ., ., ., .,									
		1		WA	TER PARAN		Τ			
TIME	PH		CONDUCTIVITY		ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 1	URBIDITY
16:14	7.7	;	870			6°C			N	IR .
							1			
				MON	ITORING R	EADINGS		·		
						HANBY SCREEN	IING			
TIME	PID READ	ING (ppm	1)	CG/LE	EL (%)	(standard/ppm)				····
16:10	BZ=0			0		NR				
16:13	BZ=0			0	NR					
BG=Background;	BZ=Breath	ing Zone;	BH=E	Borehol	e; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
						REQUESTED				
						TEGOLOTED		ANCHO	DAGE	LAR
			BARR	IOW LA	В					
ANALYSES	1		CONT	TAINER	S	ANALYSES	1	CON	TAINE	RS
		WA	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 m	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
		L					<u> </u>	L		<u> </u>

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/16/93</u>			s/	AMPLE	ID: BTR-SE	008-SD03				
RADAR STATION: B	Barter		w	'EATHE	R: Sunny, 4	40°F				
SITE/AOC: Contami							MA	GNETIC HEAD	DING:	S, Upstream
FIXED POINT: 310 f	eet south fi	rom log ja	<u>am on</u>	east si	de of ditch.					
SAMPLE MATRIX:	☐ Soil (S)	■ S	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JN										
TIME SAMPLED: 16										
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>s</u>	ample	Jocatio	n water has	s iron staining, relati	vely cle	ar low flow ra	te.	
SAMPLING METHOD	D. Disposa	hle snooi								
QA/QC SAMPLES C				ent Bla	nk (FR)	☐ QA/QC E>	etra Vol	umae		
☐ Trip Blank (TB)	OLLLO , L.					e ID				
☐ Ambient Condition	n Blank (A	.B) □ R	eplica	te of Sc	oil Sample II	D				
Ĭ,		-	•		TER PARAI					
TIME	PH	T	CON	IDUCTIV		<u> </u>	Терб	SPECIFIC GRAVITY		TURBIDITY
			·		/11 1		TEMPERATURE SPE			
16:39	7.4		1190			6°C			<u> </u>	0002
				MON	NITORING R	PEADINGS.				
				MON	III UNING A			T		
TIME	PID READ	DING (ppi	m)	CG/LE	EL (%)	HANBY SCREET (standard/ppm)	VING			
16:36	BZ=0	- VI I		0		NR		:	+	
16:39	BZ=0			0		NR			+	
				L		. 1 '''				
BG=Background;	BZ=Breatn	ling Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncoi	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	\B			ANCHO	RAGE	E LAB
ANALYSES			CON	ITAINER	 8S	ANALYSES		CON	TAINE	
7117/12/02/0					1	ANALISES	/			T
		<u> </u>	/ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml	L	4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 r	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml	,	4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/16/93</u>		S	AMPLE	ID: BTR-S	D08-SD04				
RADAR STATION: _E		v							
SITE/AOC: Contami	inated Ditch	n, SD08 F	EET FR	OM FIXED	POINT: <u>360</u>	MA	GNETIC HEAD	DING:	S, Upstrear
FIXED POINT: 360 f	eet south fi	rom log jam or	n east si	de of ditch	at confluence of trib	utary a	nd the main d	itch.	
SAMPLE MATRIX: [` '	Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, J					" » o ! o	O.,			
TIME SAMPLED: 1						6"			
SAMPLE DESCRIPT	ION/COMM	IENTS: <u>Iviedia</u>	is moisi	Tine sands	to coarse graveis.				
SAMPLING METHOL	D: Spade a	and scoop							
QA/QC SAMPLES C	OLLECTED): 🗌 Equipr	nent Bla	ınk (EB)	☐ QA/QC E	dra Vol	umes		
☐ Trip Blank (TB)					e ID				
☐ Ambient Condition	on Blank (A								
			WA	TER PARA	METERS				
TIME	PH	CON	NDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVI	ΓY -	TURBIDITY
16:51	7.3	1010)		8°C			1	NR
		· ·	MOM	NITORING F	READINGS				
TIME	PID REAL	DING (ppm)	CG/LI	EL (%)	HANBY SCREET (standard/ppm)	NING			
16:51	BZ=0	(1)	0		NR				
16:53	BZ=0		0		NR				
BG=Background;	BZ=Breath	ning Zone; BH:	=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
		/	CHECK	ANALYSE	S REQUESTED				
	1	1	ROW LA				ANCHO	ORAGE	 E LAB
ANIAL VOEO			NTAINEF		111111111111111111111111111111111111111			ITAINE	
ANALYSES					ANALYSES	/			SOIL
TOU		WATER	1 	SOIL	1 1/00 (0000)		WATER		
TPH PCB	/	1 liter		8 oz	VOC (8260) SVOC (8270)		3 x 40 ml		4 oz 8 oz
PESTICIDES							1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	TOTAL METALS DISS METALS		1 liter		
VOC-BTEX 8020	1	1 7 40 1111		4 02	TDS		250 ml	L	
10001210020					TSS		250 ml		
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
				1	1	<u> </u>	L		<u> </u>

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/16/93</u>			SA	MPLE	ID: BTR-SE	008-SD05				
RADAR STATION: B	Barter		WE	EATHE	R: Sunny, p	partly cloudy, windy				
SITE/AOC: Conatam							MA	GNETIC HEAD	JING:	S, upstream
FIXED POINT: 410 f	eet south fr	rom log ja	ım on	east sid	de of ditch.					
SAMPLE MATRIX:	☐ Soil (S)	■ Se	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JN					-111			,		
TIME SAMPLED: 17										
SAMPLE DESCRIPTI	ON/COMM	ENTS: Se	<u>edime</u>	nts are	fine sands,	iron staining. Phot	o 26, v	vater is relative	ly clea	ar.
SAMPLING METHOD	n Disposa	hle snoor								
QA/QC SAMPLES C				ent Rla	nk (ER)	☐ QA/QC E	tra Vol	umne		
☐ Trip Blank (TB)	OLLLOTED					e ID		unies		
☐ Ambient Conditio										
			-		TER PARAI					
TIME	PH		CON	DUCTIV		TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
16:59	7.4		990	1844 - 194		8°C			\dashv	NR
10.00	 '						+-			VI.
							-			
				MON	NITORING R	EADINGS				
						HANBY SCREE	NING		\Box	
TIME	PID READ	DING (ppn	n)	CG/LE	EL (%)	(standard/ppm)				
16:57	BZ=0		\perp	0		NR			\perp	
16:59	BZ=0			0	NR					
BG=Background;	BZ=Breath	ing Zone;	BH=	Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
	•					S REQUESTED				
						The Gold Teb		ANGUIC		
				ROW LA				ANCHO	HAGE	- LAB
ANALYSES	1		CON	TAINER	IS	ANALYSES	1	CON	TAINE	:RS
		W	ATER	<u> </u>	SOIL			WATER		SOIL
ТРН	/	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ						SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40 n	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/16/93</u>			_SAMPLE	ID: BTR-SI	D08-SD09				
RADAR STATION: B	arter		WEATHE	R: Sunny,	partly cloudy, windy	40°F			· · · · · · · · · · · · · · · · · · ·
SITE/AOC: Contami	nated Ditch	, SD08	_ FEET FF	ROM FIXED I	POINT: 410	MAGNE	ETIC HEADING	3: <u>So</u>	uth upstrean
FIXED POINT: 410 for									
SAMPLE MATRIX:	☐ Soil (S)	Sed	liment (SD) 🗆	Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JM									
TIME SAMPLED: 17									
SAMPLE DESCRIPTI	ON/COMM	ENTS: Sec	diments are	e fine sands	iron staining. Phot	o 26, v	vater is relative	ely clea	àr.
CAMPLING METHOE): Dianasa	hla anaan							
SAMPLING METHOD			inment Bl	ank (EP)	☐ QA/QC Ex	dra Vol	umae		
QA/QC SAMPLES Co ☐ Trip Blank (TB)	OLLECTED		•	. ,	e ID	a voi	umes		
☐ Ambient Condition	n Blank (A	•							
, Amaion contains									
		· · · · · · · · · · · · · · · · · · ·	W	ATER PARA	METERS			<u> </u>	
TIME	PH	C	CONDUCT	IVITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY
16:59	7.4	9	90		8°C				
			МО	NITORING F	READINGS				
					HANBY SCREE	NING			
TIME	PID REAL	DING (ppm)	CG/L	EL (%)	(standard/ppm)				
16:57	BZ=0		0		NR				
16:59	BZ=0		0		NR				
BG=Background;	BZ=Breath	ing Zone; E	3H=Boreh	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncoi	ntained)
			✓ CHEC	K ANALYSE	S REQUESTED				
		Ь					ANCHO)BAGE	- I AR
			ARROW L		-				
ANALYSES	1	C	ONTAINE	RS	ANALYSES	1	CON	TAINE	RS
		WAT	TER	SOIL			WATER		SOIL
TPH	1	1 liter	· · · · · · · · · · · · · · · · · · ·	8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ					SVOC (8270)	1	1 liter		8 oz
PESTICIDES					TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
			l		TSS		250 ml		***
					тос	1	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
				 	IOLF		2 111.613		2 1 0 02
		l		1					1

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes: Bullen=

DATE: <u>08/16/93</u>			s/	AMPLE	ID: BTR-SI	008-SW01				
RADAR STATION: _E	Barter		w	EATHE	R: Sunny,	40°F				
SITE/AOC: Contami							MA	GNETIC HEAI	DING:	S Upstream
FIXED POINT: Log j									-	
SAMPLE MATRIX:	☐ Soil (S)		3edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JI										
TIME SAMPLED: 1								· · · · · · · · · · · · · · · · · · ·		
SAMPLE DESCRIPTI	ON/COMM	ENTS: N	Nater i	s clear,	with no sec	diment and no turbic	tity.			
SAMPLING METHOD): Docoppi	od books		·					****	
QA/QC SAMPLES C				ont Ria	nk (ER)		dra Val	umos		
☐ Trip Blank (TB)	OLLEGIED					e ID				
☐ Ambient Condition	on Blank (A	.B) 🗆 F	Replica	te of Sc	alei Sample I	םו ב				
									-	
	1				TER PARA		1.			
TIME	PH		CON	IDUCTI	TIVITY TEMPERATURE		SPE	CIFIC GRAVIT	Υ -	TURBIDITY
15:36	8.5		1,230)		8°C				.001
										A
			·····	MON	IITORING F	READINGS				
7045	DID DE					HANBY SCREET	NING			·
TIME	PID REAL	READING (ppm)			EL (%)	(standard/ppm)			_	
15:30	BZ=0			0		NR				
15:36	BZ=0			0		NR				
BG=Background;	BZ=Breath	ning Zone	∍; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
		<u> </u>		CHECK	ANALVSE	S REQUESTED				
						S REGUESTED				
			BAR	ROW LA	AB	1		ANCHO	PRAGE	E LAB
ANALYSES	1		CON	ITAINEF	RS	ANALYSES	1	CON	TAINE	RS
		٧	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml	1	4 oz
РСВ						SVOC (8270)	1	1 liter		8 oz
PESTICIDES		1				TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1	1				TDS	1	250 ml		
				I		TSS	1	250 ml		
						TOC	1	500 ml		4 oz
						TCLP		2 liters	· · · · · · · · · · · · · · · · · · ·	2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

	artor								
RADAR STATION: <u>B</u>				R: Sunny,					
SITE/AOC: Contamir						MA	AGNETIC HEA	DING:	S upstrear
FIXED POINT: 210 fe	eet south f	rom log jam;	at west s	ide tributan	/.				
SAMPLE MATRIX:		☐ Sedir	nent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, JN</u> TIME SAMPLED: <u>16</u>			DEPTH C	TE SAMPLE	(feet): Surface wat	er			
SAMPLE DESCRIPTION					• • •		litch Northern	most t	ributary, wes
side of main stream.	.,			1 41 55111 515	orrow at the stary at the				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
SAMPLING METHOD	: Deconn	ed beaker							
QA/QC SAMPLES CO			ment Bla	ınk (EB)	☐ QA/QC E>	tra Vol	umes		
☐ Trip Blank (TB)					e ID				
☐ Ambient Conditio	n Blank (A								
			WA	ATER PARA	METERS		·		
TIME	PH	cc	NDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry	TURBIDITY
16:14	7.7	870)		6°C				NR
			MOM	NITORING F	READINGS				
TIME	DID BEVI	DING (ppm)	CG/I	EL (%)	HANBY SCREET (standard/ppm)	VING			
16:10	BZ=0	лис (ррпп)	00/2	LL (/8)	NR				
16:13	BZ=0		0	NR					
BG=Background; I	BZ=Breath	ing Zone; BH	I=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			/ CHECK	(ANALYSE	S REQUESTED				
			RROW L				ANCHO	DRAGE	E LAB
ANALYSES			NTAINEF		ANALYSES	1		ITAINE	
AIVALIOLO		WATE		SOIL	7117121020		WATER	*	SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml	I	4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/16/93</u>			SAMPLE	E ID: BTR-SI	D08-SW03				·-·
RADAR STATION: B									
SITE/AOC: Contami						MA	GNETIC HEA	DING:	S Upstream
FIXED POINT: 310 f									
SAMPLE MATRIX: [☐ Soil (S)	☐ Se	diment (SD)) =	Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JI									
TIME SAMPLED: 16									
SAMPLE DESCRIPTI	ON/COMM	ENTS: Wa	ater has iro	n staining, re	elatively clear, low flo	ow rate	. Sample loca	ation p	hoto 24.
SAMPLING METHOD	- Deconn	ad beaker							
			winmont RI	look (ED)		Vol			
QA/QC SAMPLES Co ☐ Trip Blank (TB)	OLLECTED								
☐ Ambient Condition		B) □ Be	iblicate of S	Nater Sample I Soil Sample I	e ID				
				ATER PARA	T	1			
TIME	PH		CONDUCT	IVITY	TEMPERATURE	SPE	CIFIC GRAVIT	<u> </u>	TURBIDITY
16:39	7.4		1,190		6°C			,	.0002
						1			
								_	
				-					
			МО	NITORING F	READINGS				
					HANBY SCREET	NING			
TIME	PID READ	DING (ppm	1) CG/I	LEL (%)	(standard/ppm)				
16:36	BZ=0		0		NR				
16:39	BZ=0		0	0 NR					
BG=Background;	BZ=Breath	ing Zone;	BH=Boreh	iole; NR=No	Readings; HS=Hea	adspace	e: S=Sample	(unco	ntained)
									,
					S REQUESTED	 	<u> </u>		
		[F	BARROW L	.AB			ANCHO)RAGE	E LAB
ANALYSES	1	ļ ,	CONTAINE	RS	ANALYSES	1	CON	ITAINE	RS
		WA	ATER	SOIL	!		WATER		SOIL
TPH	/	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 m	ni	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020		1 1 10 111	"	7 02					
VOO-B1EX 5020	/			<u> </u>	TDS		250 ml		
		 			TSS		250 ml		
			-		тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/16/93			SAMPLE	ID: BTR-SI	008-SW04				
RADAR STATION: B	Barter	\	VEATHE	R: Sunny,	partly cloudy, windy	, 40°F			
SITE/AOC: Contami	nated Ditch	, SD08 F	FEET FR	OM FIXED F	POINT: 410	MA	GNETIC HEA	DING:	S Upstream
FIXED POINT: 410 f	eet south fr	rom log jam o	n east si	de of ditch.	North of tributary.				
SAMPLE MATRIX:	, ,	☐ Sedim	nent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JN					// · · · · · · · · · · · · · · · · · ·				
TIME SAMPLED: 17							nhata OC		
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>vvater</u>	is yellov	visn, relative	ely clear. Sample lo	callon	prioto zo.		
SAMPLING METHOD	Deconne	ed beaker							
QA/QC SAMPLES C	OLLECTED	: 🗌 Equip	ment Bla	ınk (EB)	☐ QA/QC E>	tra Vol	umes		
☐ Trip Blank (TB)		Duplic	ate of W	ater Sample	e ID BTR-SD08-SW	08			
☐ Ambient Conditio	n Blank (A	B) 🗌 Replic	ate of So	oil Sample I	D				
			WA	ATER PARA	METERS				
TIME	PH	СО	NDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY
16:59	7.4	990			8°C			1	VR
			MON	NITORING F	READINGS				
					HANBY SCREEN	NING			
TIME	PID READ	DING (ppm)	CG/L	EL (%)	(standard/ppm)			<u> </u>	
16:57	BZ=0		0		NR				
16:59	BZ=0		0		NR				
BG=Background;	BZ=Breath	ing Zone; BH	=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			CHECK	(ANALYSE	S REQUESTED				
		BAF	RROW LA	AΒ			ANCHO	RAGE	LAB
ANALYSES	1	СО	NTAINEF		ANALYSES	1	CON	TAINE	:RS
		WATE	R	SOIL			WATER		SOIL
ТРН	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ					SVOC (8270)	1	1 liter		8 oz
PESTICIDES					TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS	1	1 liter		
VOC-BTEX 8020	1				TDS	1	250 ml		
					TSS	1	250 ml		
					тос	1	500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/16/93</u>			S/	AMPLE	ID: BTR-SE	D08-SW08				
RADAR STATION: _E							, 40°F			
SITE/AOC: Contami	inated Ditch	<u> 1, SD08</u>	FE	EET FRO	OM FIXED F	POINT: 410	MA	GNETIC HEA	DING:	S Upstream
FIXED POINT: 410 f										
SAMPLE MATRIX: [☐ Soil (S)	□s	sedime	ent (SD)	, 🔳	Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, JI</u>										
TIME SAMPLED: 1										
SAMPLE DESCRIPTI	ON/COMM	IENTS: <u>V</u>	Vater i	s yellow	vish, relative	ely clear. Sample lo	cation,	photo 26.		
TANKS METHOL										
SAMPLING METHOD										
QA/QC SAMPLES C								umes		
	on Blank (Al					e ID <u>BTR-SD08-SW</u>				
☐ Ambient Condition	JI BIANK (A	.B) L.in	leplica	te or so	II Sample II	υ				
				WA	ATER PARA	METERS				
TIME	PH		CON	IDUCTIV		TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY
16:59	7.4		990			8°C			\neg	NR
									+	
							+		\dashv	
				MON	VITORING F	READINGS				
						HANBY SCREET	NING			
TIME	PID READ	OING (pp	m)	CG/LI	EL (%)	(standard/ppm)			\bot	
16:57	BZ=0			0		NR			\bot	
16:59	BZ=0			0	0 NR					
BG=Background;	BZ=Breath	ning Zone	; BH=	-Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			1	CHECK	(ANALYSE	S REQUESTED				
			BAR	ROW LA	AВ			ANCHO	 DRAGI	E LAB
ANALYSES	1		CON	ITAINEF	RS *	ANALYSES	1	CON	TAINE	ERS
		W	VATER		SOIL		-	WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	J	3 x 40 ml		4 oz
PCB						SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40 i	ml		4 oz	DISS METALS	1	1 liter		
VOC-BTEX 8020	1					TDS	1	250 ml		844
						TSS	1	250 ml		
						тос	1	500 ml		4 oz
	'				<u> </u>	TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

SAMPLE COLLECTION LOGS FOR THE OLD RUNWAY DUMP (LF12)

DATE: <u>08/22/93</u>			SAN	MPLE I	D: BTR-LF	12-S01				
RADAR STATION: B	SAMPLE ID: BTR-LF12-S01 WEATHER: 40°F, foggy, calm to variable light winds									
SITE/AOC: Old Runv	way Dump, LF12 FEET FROM FIXED POINT: 20 MAGNETIC HEADING: East ple location is from west shoreline boundary (see map).									
FIXED POINT: Samp	ole location	is from w	est sho	oreline	boundary	(see map).	.,			
SAMPLE MATRIX:	Soil (S)	☐ Se	edimen	t (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, TM	Л									
TIME SAMPLED: 15	5:30		DEF	PTH OI	F SAMPLE	(feet): Surface graf	samp	le		
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>Sa</u>	nds an	d grave	el fill materi	al, pebble and grave	remov	ed prior to san	npling.	Note: diese
operated vehicle gen	erally dowr	nwind but	winds 1	were v	ariable, vel	nicle kept on standb	y beca	use a sow and	d 2 cul	os were seel
in the area this morni		····								
SAMPLING METHOD										
QA/QC SAMPLES CO										
		□ Du	uplicate	of Wa	ater Sample	e ID				
☐ Ambient Conditio	n Blank (A	B) 🗌 Re	eplicate	of So	il Sample I	D		7 7 7 7		
				WA ⁻	TER PARA	METERS				
TIME	PH		COND	UCTIV	TTY	TEMPERATURE	SPE	CIFIC GRAVIT	ry -	TURBIDITY
	1					1200 200000	+			
				MON	ITORING F	TADINGS				
			—т	MON	ITORING F	EADINGS				
TIME		DINIC (non		00/15	. (0/)	HANBY SCREET	NING			
TIVE	PID REAL	DING (ppm	1)	CG/LE	:L (%)	(standard/ppm)				
BG=Background: I	BZ=Breath	ina Zone:	BH=B	orehol	e: NR=No	Readings; HS=Hea	adspac	e: S=Sample	(uncor	ntained)
							aopao	0, 0 – 0 di ilipio	(011001	namou,
			<i>7</i> C	HECK	ANALYSE	S REQUESTED				
			BARRO	AL WC	В]		ANCHO	DRAGE	LAB
ANALYSES	1		CONT	AINER	S	ANALYSES	1	CON	ITAINE	RS
		WA	ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB	1					SVOC (8270)	1	1 liter	l.,	8 oz
PESTICIDES	1					TOTAL METALS	1	1 liter		8 oz
HVOC 8010	✓ 1 x 40 ml 4					DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
L	1	1				L				ŀ

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/22/93			SA	MPLE	D: BTR-LF	12-S02					
	OS/22/93 SAMPLE ID: BTR-LF12-S02 R STATION: Barter WEATHER: Foggy, misty, cool, calm, 40°F OC: Old Bupway Dump J E12 FEET FROM FIXED POINT: 100 MAGNETIC HEADING: East										
SITE/AOC: Old Runy	TE/AOC: Old Runway Dump, LF12 FEET FROM FIXED POINT: 100 MAGNETIC HEADING: East KED POINT: Sample collected from west side of spit. (See map)										
	•	•									
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>JB, RC</u>											
TIME SAMPLED: 15											
SAMPLE DESCRIPTION											
removed coarse pebl										t winds were	
variable. Vehicle kep				alert as	a sow and	2 cubs were obser	ved ear	iler this mornii	ng.		
SAMPLING METHOD QA/QC SAMPLES CO				ent Ria	nk (ER)		tra Vol	ımes			
☐ Trip Blank (TB)	OLLEGIED					e ID					
☐ Ambient Conditio											
		, —	'		TER PARA						
TINE	Du		CON	DUCTIV		TEMPERATURE	SPE	CIFIC GRAVIT	v 7	URBIDITY	
TIME	PH		CON	DUCIN	/11 Y	TEMPERATURE	JOFE	CIFIC GRAVII	<u>' '</u>	ONDIDITI	
	_			····							
	1			MON	IITORING F	READINGS					
				.,,,,,,,		HANBY SCREET	IING				
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)	VIIVG				
										. , , , , , , , , , , , , , , , , , , ,	
									_		
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)	
			1	CHECK	ANALYSE	S REQUESTED					
			BARF	ROW LA	ΛB			ANCHO	RAGE	LAB	
ANALYSES	1		CON	TAINER	IS	ANALYSES	1	CON	TAINE	RS	
		W	/ATER		SOIL			WATER		SOIL	
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ	1					SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020					TDS		250 ml				
						TSS		250 ml			
						тос		500 ml		4 oz	
			.,			TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/22/93</u>			SA	MPLE I	D: BTR-LF	12-S03						
	SAMPLE ID: BTR-LF12-S03 Barter WEATHER: Foggy, misty, cool, calm, 40's°F											
SITE/AOC: Old Run	way Dump, LF12 FEET FROM FIXED POINT: 150 MAGNETIC HEADING: East											
FIXED POINT: Same	e location is	east of	shorel	ne on s	pit. (see ma	ap)			-			
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: JB, RC												
TIME SAMPLED: 15												
SAMPLE DESCRIPTI												
downwind. Winds w	<u>ere variable</u>	e, howev	er. Ve	hicle wa	as diesel po	wered. Polar bear	watch :	as one was sr	otted	this morning		
(a sow and 2 cubs).): Dianasa	hla aaaa	<u> </u>	·								
SAMPLING METHOD QA/QC SAMPLES CO				ent Bla	nk (FB)		tra Vol	umes				
☐ Trip Blank (TB)						e ID						
☐ Ambient Condition												
ļ	•		<u>'</u>		TER PARA							
TIME	PH		CON	DUCTIV		TEMPERATURE	SDE	CIFIC GRAVIT	~ T-	 FURBIDITY		
THAL	1111		CON	DOOTIV	7111	TEMPERATORE	1 31 2	OII IO GITAVII	<u>'-</u>	CHOIDITT		
				• • • • • • • • • • • • • • • • • • • •					-			
				MON	IITORING R	EADINGS						
		MONITORING READINGS HANBY SCREENING										
TIME	PID REAL	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)						
BG=Background:	BZ=Breath	ina Zone	 e: BH=	:Boreho	le: NR=No	Readings; HS=Hea	adspac	e: S=Sample	(unco	ntained)		
Da Basing, saina,	51 5 , 6	9					adopao	o, o – odinipio	(41.00.	namou)		
<u> </u>	<u>-</u>	1				REQUESTED	<u> </u>					
			BARI	ROW LA	\B 			ANCHO	DRAGE	LAB		
ANALYSES	1		CON	TAINER	IS	ANALYSES	1	CON	TAINE	RS		
		v	VATER		SOIL			WATER		SOIL		
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz		
PCB	1					SVOC (8270)		1 liter		8 oz		
PESTICIDES						TOTAL METALS		1 liter		8 oz		
HVOC 8010	✓ 1 x 40 ml 4 c					DISS METALS		1 liter		***		
VOC-BTEX 8020	EX 8020 🗸					TDS		250 ml				
						TSS		250 ml				
						тос		500 ml		4 oz		
						TCLP		2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

Radar Station Codes:

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Bullen=BUL; Oliktok=OLI; Barter=BTR; Lonely=LON; Barrow=BRW; Wainwright=WRT; Lay=LAY; Lisburne=LIS

SAMPLE COLLECTION LOGS FOR THE HEATED STORAGE (SS13)

DATE: <u>08/18/93</u>			SA	MPLE I	D: BTR-SS	13-S01					
RADAR STATION: <u>B</u>	ATE: 08/18/93 SAMPLE ID: BTR-SS13-S01 ADAR STATION: Barter WEATHER: Sunny, clear, 50°F TE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 1 MAGNETIC HEADING: East (true)										
SITE/AOC: <u>Heated S</u>	Storage, SS	13	FE	ET FRO	OM FIXED P	OINT: 1	MA	GNETIC HEA	DING:	East (true)	
FIXED POINT: East	end of nort	h culvert,	due e	ast of h	neated stora	ige building (SS13)	1 foot f	rom end of cu	ılvert.		
SAMPLE MATRIX:		□ s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: PG, R					¥						
TIME SAMPLED: 11										AT	
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>S</u>	ilt, sar	nd, and	gravel fill, n	noist.					
SAMPLING METHOD): Spade a	nd scoor									
QA/QC SAMPLES CO	-			ent Blar	nk (EB)	☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)	0					e ID					
☐ Ambient Conditio	n Blank (Ai										
			·		TER PARAM						
TIME	PH	Γ	CON	DUCTIV		TEMPERATURE	Tepe	CIFIC GRAVIT	√ T -	TURBIDITY	
TIIVIE			CON	DUCTIV	/II Y	TEMPERATURE	SFE	CIFIC GRAVII	`	וועומאט ו	
											
				MON	IITORING R	EADINGS					
						HANBY SCREEN			\neg		
TIME	PID READ	DING (ppi	m)	CG/LE	EL (%)	(standard/ppm)	VIIVG				
11:50	BZ=0			0		NR					
11:52	BZ=0			0		NR					
BG=Background;	BZ=Breath	ing Zone	; BH=	:Boreho	ole; NR=No	Readings; HS=Hea	adspace	e; S=Sample	uncor	ntained)	
			/	CHECK	ANALYSES	S REQUESTED					
				ROW LA		, medde.		ANCHO		= 1 AR	
										<u></u>	
ANALYSES	1		CON	ITAINER	IS	ANALYSES	1	CON	TAINE	RS	
		w	/ATER		SOIL			WATER		SOIL	
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ	1					SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml			
						тос		500 mi		4 oz	
						TCLP		2 liters		2 x 8 oz	
		L				1		L		1	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/18/93</u>		s	AMPLE	ID: BTR-S	S13-S02						
RADAR STATION: Barter WEATHER: Sunny, warm, 50°F											
SITE/ÁOC: Heated Storage, SS13 FEET FROM FIXED POINT: 25 MAGNETIC HEADING: East (true) FIXED POINT: Under heated storage building between third and fourth tier at west end about 25 feet east of building's west end											
FIXED POINT: <u>Unde</u>	r heated sto	rage building t	oetween	third and fo	urth tier at west end	about 2	5 feet east of l	ouildin	g's west end		
SAMPLE MATRIX:		☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: PG, R			EDTU O	CAMBLE	(foot): Curfoon						
TIME SAMPLED: 14 SAMPLE DESCRIPTI					(feet): Surface	ilt cand	1 and gravel f	ill Pa	troleum ada		
			iri bullul	ng ss is oi	1 Southwest side. 3	iii, Saiic	i, and graver i	<u> 111. 1 C</u>	tioleum ouc		
present. Sampled su SAMPLING METHOD											
			nant Dia	-l. (CD)	☐ QA/QC Ex	dro Vol	umaa				
QA/QC SAMPLES C	OLLEGIED				e ID						
☐ Trip Blank (TB)	n Blank (Al	•		•					 		
Ambient Condition Blank (AB)											
			WA	TER PARA	METERS	.					
TIME	PH	CON	NDUCTIN	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	ry -	TURBIDITY		
			MON	NITORING F	READINGS						
TIME	PID REAL	DING (ppm)	CG/U	EL (%)	HANBY SCREEI (standard/ppm)	VING					
14:00	BZ=2	эпча (ррпп)	0	LL (70)	NR						
	BZ=1		0		NR						
14:04			1	us ND Na		donos	o. C.—Comple	/upoo	atainad\		
BG=Background;	BZ=Breath	ling Zone; BH:	=Borenc	ole; INH=INO	Readings; HS=Hea	auspac	e, s=sample	(unco	mairieu)		
		<u> </u>	CHECK	ANALYSE	S REQUESTED	<u> </u>	Г				
		BAR	ROW LA	AB			ANCHO	DRAGE	LAB		
ANALYSES	/	CON	NTAINEF	RS	ANALYSES	1	COV	ITAINE	RS		
		WATER	₹	SOIL			WATER		SOIL		
ТРН	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz		
РСВ	1				SVOC (8270)	1	1 liter		8 oz		
PESTICIDES					TOTAL METALS	1	1 liter		8 oz		
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	VOC-BTEX 8020 ✓ TDS 250 ml										
					TSS		250 ml				
					тос		500 ml		4 oz		
					TCLP		2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/18/93</u>			SAM	IPLE IC	D: <u>BTR-SS</u>	13-S03				
	STATION: Barter WEATHER: Sunny, warm, 50°F C: Heated Storage, SS13 FEET FROM FIXED POINT: 0 MAGNETIC HEADING: N/A									
								GNETIC HEA	DING:	N/A
FIXED POINT: <u>Mid p</u>	oint under	heated sto	orage b	uilding	about 35	feet west of east en	d.			
SAMPLE MATRIX:	Soil (S)	☐ Se	diment	(SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, R1</u>										***
TIME SAMPLED: 14						, ,				
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>Be</u>	eneath S	<u> </u>	on southea	st side. Silt, sand a	nd grav	/el fill.		
SAMPLING METHOD): Scoop					***************************************				
QA/QC SAMPLES CO		:	uipmen	nt Blan	ık (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)						e ID				
☐ Ambient Conditio	n Blank (Al									
				WAT	TER PARAM	METERS				
TIME	PH		CONDL	JCTIV	ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ 1	TURBIDITY
		-			-		+			
	+						-		+	
l	 						-		+	
				MONI	ITORING R	EADINGS				
						HANBY SCREEN	ING			
TIME	PID READ	DING (ppm	1) (CG/LE	L (%)	(standard/ppm)				
13:56	BZ=0		C	0		NR				
14:06	BZ=0			0 NR						
BG=Background;	BZ=Breath	ing Zone;	BH=Bc	orehol	e; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
<u> </u>		_				S REQUESTED		-		·
						REQUESTED		*******		- ·
			BARRO	W LAI	В	ļ		ANCHO)RAGE	: LAB
ANALYSES	1		CONTA	INER	S	ANALYSES	1	CON	TAINE	RS
		WA	ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 m	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/18/93</u>			SA	MPLE I	D: BTR-SS	13-S04				
RADAR STATION: <u>B</u>	arter WEATHER: Sunny, warm, 50°F torage, SS13 FEET FROM FIXED POINT: 8 MAGNETIC HEADING: Westerly									
							м	AGNETIC HE	ADING	: Westerly
FIXED POINT: 8 feet										
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, R</u>										
TIME SAMPLED: 14	1:10		DE	EPTH O	SAMPLE	(feet): Surface	-1 -6 1-	antad starage	- buildi	na in trauah
SAMPLE DESCRIPTI					gravel fill, I	moist, 8 feet due we	St OF I	ealeu Slorage	bullul	ng in trougt
leading to small pond SAMPLING METHOD				***						
QA/QC SAMPLES C				ent Blar	nk (FB)	☐ QA/QC Ex	tra Volu	umes		
Trip Blank (TB)						e ID				
☐ Ambient Condition										
				WA.	TER PARA	METERS				
	T 511	ı j					CDE	CIFIC GRAVIT	v 7	URBIDITY
TIME	PH		CON	DUCTIV	TIY	TEMPERATURE	SPE	CIFIC GRAVII	<u>' </u>	ווטוסחט
							ļ			
									1_	
				MON	ITORING R	READINGS				
						HANBY SCREEN	NING			
TIME	PID READ	ING (pp	m)	CG/LE	L (%)	(standard/ppm)				
14:08	BZ=0			0	· · · · · · · · · · · · · · · · · · ·	NR				
14:15	BZ=0			0		NR	_			
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
			./	CHECK	ANALYSES	S REQUESTED				
	1					THE GOLOTED		ANCHO)BAGE	IAR
			BAR	ROW LA	'R			ANONC	MAGE	LAD
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		W	/ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
				<u> </u>		TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
II		I			l	.1	L	1		L

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/02/93</u>			SA	MPLE I	D: BTR-SS	313-2805-1				
RADAR STATION: <u>B</u>	arter		WE	EATHEF	R: Cloudy,	rain, 30°F				
SITE/AOC: Heated S										
FIXED POINT: Meas										ge building.
SAMPLE MATRIX:	, ,			nt (SD)		Surface Water (SW)		Groundwater (G	iW)	
SAMPLERS: RT, MI						· · · ·			· · ·	
TIME SAMPLED: <u>13</u> SAMPLE DESCRIPTI										Additional
contamination observ					Janio mako	i. Gample collected	1101111	Hateriai uriaci ta	Juiu	. Additional
SAMPLING METHOD					ble scoop					
QA/QC SAMPLES C	OLLECTED	: 🗆 E	quipm	ient Blai	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
						e ID				
Ambient Conditio	n Blank (A	3) 🗆 R	leplicat	te of So	oil Sample II	D				
				WA	TER PARA	METERS		······································		
TIME	PH	_	CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVITY	Т	URBIDITY
					•		1			
		10,440,440,440					†		T	
	+						 		+	
						1	1			
				MON	ITORING F	READINGS		1	1	
	DID DEAF	2110 (a.a.		20// [HANBY SCREEN	IING			
TIME	PID READ)ING (pp	<u>m)</u>		EL (%)	(standard/ppm)			<u> </u>	
	BZ=0			0		NR			 	
	<u> </u>									
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample (ur	ncon	itained)
			/	CHECK	(ANALYSE:	S REQUESTED				
			BARF	ROW LA	 \В			ANCHOR.	AGE	LAB
221212055				ITAINER				CONTA		
ANALYSES					T	ANALYSES	1		III	
			VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1			l		TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/02/93</u>			SA	MPLE II	D: <u>BTR-SS</u>	13-2S06-1				
RADAR STATION: Barter WEATHER: Cloudy, rain, 30°F SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 87 MAGNETIC HEADING: 190°										
								IAGNETIC HE	ADING	6: <u>190°</u>
FIXED POINT: The so										
SAMPLE MATRIX: 📕	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RT, ML										
TIME SAMPLED: 14	:00		DE	PTH OF	SAMPLE	(feet): 1	ominat	ion was obser	and at	25 feet from
SAMPLE DESCRIPTION post and 78 feet from							amma	IOIT Was Obser	veu at	23 1661 11011
SAMPLING METHOD:						ide of glaver pad.				
QA/QC SAMPLES CC						☐ QA/QC Ex	tra Volu	umes		
☐ Trip Blank (TB)						ID				
☐ Ambient Condition										
					TER PARAM					
	PH		CON	DUCTIV		TEMPERATURE	SDE	CIFIC GRAVIT	v T	URBIDITY
TIME	TEMPERATURE	J.	OIFIO GILAVII	<u>' '</u>	CHBIBITT					
i.										
				MON	ITORING R	EADINGS				
	0.0 05.0		>	0045	-1 (0()	HANBY SCREEN	IING			
TIME	PID READ	ING (pp	m)	CG/LE	:L (%)	(standard/ppm)			+-	
14:00	BZ=0			0		NR				
BG=Background; E	3Z=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
						S REQUESTED				
	T					HEGOLOTED		ANCHO	BAGE	IΔB
			BAH	ROW LA	'R			ANOTIC	TIAGE	
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		٧	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020 ✓ TDS 25						250 ml				
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/02/93</u>			SA	MPLE I	D: BTR-SS	13-2S07-1				
	SAMPLE ID: BTR-SS13-2S07-1 Barter WEATHER: Cloudy, rain, 30°F Storage, SS13 FEET FROM FIXED POINT: 100 MAGNETIC HEADING: 70°									
SITE/AOC: <u>Heated S</u>	torage, SS	13	_ FE	ET FRO	M FIXED F	POINT: 100		MAGNETIC H	IEADII	NG: <u>70°</u>
FIXED POINT: The s	outhwest c	orner of	the he	ated sto	rage buildi	ng.				
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RT, ML</u>	.									
TIME SAMPLED: <u>14</u>										
SAMPLE DESCRIPTION					e fine sand	s. No staining or od	or. The	culvert locate	d on th	ne south fac
of the heated storage										
SAMPLING METHOD										
QA/QC SAMPLES CO										
						e ID				
Ambient Condition	n Blank (Al	B) F	Replica	te of So	il Sample II	D				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	TURBIDITY
		······································							-+	
							ļ			
			<u> </u>							
				MON	ITORING R	EADINGS				
						HANBY SCREEN	NING			
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	λB			ANCHO	RAGE	ELAB
ANALYSES	1		CON	TAINER	IS	ANALYSES		CON	TAINE	RS
AIVALIOLO	- •	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	VATER		SOIL	ANALIOLO		WATER		SOIL
			VAILI			1,00,000				
TPH	/	1 liter			8 oz	VOC (8260)	/	3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/18/93</u>			SA	MPLE	D: BTR-SS	S13-SD01				
RADAR STATION: B	08/18/93 SAMPLE ID: BTR-SS13-SD01 STATION: Barter WEATHER: Sunny, light breeze, 40°F C: Heated Storage, SS13 FEET FROM FIXED POINT: 12 MAGNETIC HEADING: East (true) ~90°									
SITE/AOC: Heated S	torage, SS	13	FEE	T FROM	1 FIXED PO	INT: <u>12</u>	MAGNE	TIC HEADING	Eas	t (true) ~90
FIXED POINT: East	end of nort	hern most	t culve	ert, due	east of cul	vert, 12 feet.				
SAMPLE MATRIX: [☐ Soil (S)	■ Se	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RT, PC										
TIME SAMPLED: 12										
SAMPLE DESCRIPTION	ON/COMMI	ENTS: <u>Ro</u>	ounded	d to sub	rounded gr	avels in a silt and me	<u>dium-c</u>	oarse grained	sand r	natrix. Moist
OAADI WO METHOE	. O									
SAMPLING METHOD	<u> </u>			. 51	(ED)	- 04/00 F				
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB) ☐ Ambient Condition	n Blank (Al					e ID				
Ambient Condition	III DIALIK (A	b) 🗆 ne	epiicai	ie ui sc	ample t					
				WA	TER PARA	METERS	,			
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	ry ī	TURBIDITY
							ļ			
	İ									
				MON	IITORING F	EADINGS				
			·····T	IVIOIV	110111101	T		T	1	
TIME	PID READ	DING (ppn	m)	CG/LF	EL (%)	HANBY SCREEN (standard/ppm)	NING			
	BZ=0	,,,,,,	··/	0	(,,,	NR				
11:50									-	
11:52	BZ=0			0		NR		<u> </u>		
BG=Background;	BZ=Breath	ing Zone;	BH=	Boreho	le; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
			BARE	ROW LA				ANCHO	DRAGE	LAB
						1				
ANALYSES	1		CON	TAINER	IS	ANALYSES	/	CON	ITAINE	RS
		W	ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ	1					SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40 n	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	/					TDS		250 ml		
				•		TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 08/18/93			SA	MPLE I	D: <u>BTR-SS</u>	13-SD02				
RADAR STATION: B	: 08/18/93 SAMPLE ID: BTR-SS13-SD02 R STATION: Barter WEATHER: Cloudy, breezy, 40°F AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 8 MAGNETIC HEADING: East (true)									
SITE/AOC: Heated S	torage, SS	13	_ FEE	T FROM	M FIXED PC	DINT: 8	MA			East (true)
FIXED POINT: Third	Culvert to s	south. (Th	<u>ie culv</u>	vert roug	ghly in line	with southern edge	of SS1	3 gravel pad.)		
SAMPLE MATRIX:] Soil (S)	■ Se	edimer	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RT, PG										
TIME SAMPLED: 13										
SAMPLE DESCRIPTION	ON/COMMI	ENTS:								
				·						
SAMPLING METHOD					. (55)					
QA/QC SAMPLES CO										
						ID				
☐ Ambient Condition	n Blank (Al	3) L Re	plicat	e of So	il Sample IL)				
				WA ⁻	TER PARAM	METERS			•	
TIME	PH	1	CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y	URBIDITY
13:47	7.2		990			8°C				
	 						 			
				MON	ITORING R	EADINGS				
						HANBY SCREEN	NING			
TIME	PID READ	ING (ppm	n)	CG/LE	L (%)	(standard/ppm)				
13:49	BZ=0			0		NR				
BG=Background; I	B7-Breath	ina Zone	BH-	Boreho	le: NR-No	Readings: HS-Hea	denace	s: S=Sample	(uncor	ntained)
Ba-background, a	JZ - Bi calii	ing zone,		DOICHO	10, 1411-140	ricadings, 110-11cc	aopao	5, 0=0d///pio	(011001	itali ioaj
				CHECK	ANALYSES	REQUESTED				
			BARF	ROW LA	'B			ANCHO	DRAGE	LAB
ANALYSES			CON	TAINER	S	ANALYSES	1	CON	ITAINE	RS
		· W/	ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter	<u> </u>	8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
		1 40		T	4					
HVOC 8010	/	1 x 40 n	nı		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	VOC-BTEX 8020			<u> </u>		TDS		250 ml		
					TSS		250 ml			
тос					тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

ATE: 08/18/93 SAMPLE ID: BTR-SS13-SD03												
RADAR STATION: Barter WEATHER: Partly cloudy, breezy, 40°F												
SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 6' MAGNETIC HEADING: ~90°												
FIXED POINT: Seco	nd culvert t	o south o	off sou	theast o	corner of he	eated storage.						
SAMPLE MATRIX: [edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: <u>PG, JI</u>												
TIME SAMPLED: 13								•				
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>M</u>	<u>ledia</u>	is sedin	nent in wat	er with heavy iron s	taining	minor organ	c mat	eriai presen		
Water is stagnant.												
SAMPLING METHOD										····		
QA/QC SAMPLES C	OLLECTED											
☐ Trip Blank (TB)						e ID						
☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID												
WATER PARAMETERS												
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY		
				MON	IITORING F	READINGS						
MONITORING READINGS HANBY SCREENING TIME PID READING (ppm) CG/LEL (%) (standard/ppm)												
13:14	BZ=0			0		NR						
13:20	BZ=0			0		NR						
BG=Background;	BZ=Breath	ing Zone;	 ; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncoi	ntained)		
			1	CHECK	ANALYSE	S REQUESTED						
				ROW LA				ANCHO	ORAGE	E LAB		
				TAINER		ANIALYCEC			TAINE			
ANALYSES		\\			SOIL	ANALYSES	1	WATER		SOIL		
TDU		1 liter	ATER		8 oz	VOC (8260)		3 x 40 ml	25-15	4 oz		
TPH PCB	1	i iilei			0 02	SVOC (8270)		1 liter		8 oz		
PESTICIDES	-					TOTAL METALS		1 liter		8 oz		
HVOC 8010	1	1 x 40 r	ml		4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	/	1 % 10 1	•••		102	TDS		250 ml				
	TSS 250 ml											
						тос		500 ml		4 oz		
						TCLP		2 liters		2 x 8 oz		
		·								·		

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/17/93</u>			SA	MPLE I	ID: BTR-SS	S13-SD06				
RADAR STATION: B	arter		W	EATHER	R: Sunny, v	windy				
SITE/AOC: <u>Heated S</u>	torage, SS	13	FE	ET FRO	OM FIXED F	POINT: 100	MA	GNETIC HEA	DING:	North (true
FIXED POINT: 100 fe	et north of	gravel r	oad (A	irport R	load) at eas	st-west section of cre	ek.			
SAMPLE MATRIX:	Soil (S)	E 8	3edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, JN</u>										
TIME SAMPLED: 11	:25		DE	EPTH O	F SAMPLE	(feet): Sediment 0-	6"	·,···		
SAMPLE DESCRIPTION					e east-west	creek area, 100 feet	north o	f gravel road.	Sand,	silts, gravel
(coarse), limonite, sta				<u> </u>						
SAMPLING METHOD										
QA/QC SAMPLES CO	DLLECTED									
☐ Trip Blank (TB))uplica	te of W	ater Sample	∍ ID				
☐ Ambient Condition	n Blank (A	B) LJF	leplica:	te of Sc	oil Sample II	D				
				WA	TER PARAI	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ſΥ ·	TURBIDITY
11:25	8		920			7°C	Fres	h Water		.01
1					UTODINIO 5					
<u> </u>				MUN	NITORING R	T		1	<u>1</u>	
TIME	PID READ	DING (pp	ım)	CG/LE	EL (%)	HANBY SCREET (standard/ppm)	NING			
11:25	BZ=0			0		NR				
DO DO 1	n= n								L	
BG=Background;	BZ=Breath	ing Zone); BH=	Boreno	ile; NH=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BARF	ROW LA	 ∤B			ANCHO	DRAGE	E LAB
ANALYSES	1		CON	TAINER	 RS	ANALYSES	1	CON	ITAINE	
ANALISES	 					ANALISES				T
			VATER		SOIL	<u> </u>		WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES				T		TOTAL METALS		1 liter		8 oz
HVOC 8010										
VOC-BTEX 8020	1				<u> </u>	TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
	TCLP 2 liters 2 x 8 oz									
						1				

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/17/93			SAI	MPLE II	D: BTR-SS	13-SD07				
RADAR STATION: Barter WEATHER: Cloudy, breezy, 30°F SITE/AOC: Heated Storage, SS13 FEET FROM FIXED POINT: 60 MAGNETIC HEADING: North (true										
								GNETIC HEAI	DING:	North (true)
FIXED POINT: 60 fee	et north of	Airport road	d culv	ert ope	ening along	south side of creek	bed.			
SAMPLE MATRIX:	Soil (S)	Sec	dimen	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JN	Л									
TIME SAMPLED: 11	:42		_ DEI	PTH OF	SAMPLE	(feet): <u>0-6"</u>				
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>Sa</u>	mple	collecte	ed from sec	liment with little iron	stainin	<u></u>		
CAMPLING METHOD	. Coodo o	nd socon								
SAMPLING METHOD QA/QC SAMPLES CO			uiomo	ont Bloc	ν (EB)	□ OA/OC Ev	tra Voli	ımes		
☐ Trip Blank (TB)	JLLEGIED									
☐ Ambient Conditio	n Blank (Al									
	***************************************									120
	T	<u> </u>		WA	TER PARAM		T			
TIME	PH		COND	DUCTIV	ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 1	URBIDITY
11:42	11:42 7.7 880					7°C	Fres	h Water		001
							<u> </u>			
				MON	ITORING R	EADINGS				
						HANBY SCREEN	IING			
TIME	PID READ	DING (ppm	1)	CG/LE	L (%)	(standard/ppm)				
11:45	BZ=0			0		NR				
BG=Background:	BZ=Breath	ina Zone:	BH=E	Borehol	le: NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
		,					-			
	 1	T T	70	CHECK	ANALYSES	REQUESTED				
			BARR	IOW LA	.B	:		ANCHO	DRAGE	LAB
ANALYSES	1		CONT	TAINER	S	ANALYSES	1	CON	TAINE	RS
		WA	TER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	-				0.00	SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010										
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
11										

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/17/93</u>			SA	AMPLE	ID: BTR-S	S13-SD08				
RADAR STATION: B	SAMPLE ID: BTR-SS13-SD08 Barter WEATHER: Cloudy, breezy, 30°F									
SITE/AOC: Heated S						POINT: Vicinity	N	AGNETIC HEA	DING	3: <u>N</u>
FIXED POINT: Airpo	nt Road cu	lvert outfa	III facir	ng north	n					
SAMPLE MATRIX:		■ S	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JI		• • • • • • • • • • • • • • • • • • • •								
TIME SAMPLED: 1										
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>S</u>	neen p	oresent	on water at	oove sediments. Iro	n staini	ng present, littl	e orga	anic material
SAMPLING METHOD	D: Disposa	ble scoop								
QA/QC SAMPLES C				ent Bia	nk (EB)	■ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)						e ID				
☐ Ambient Condition	n Blank (A									
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY
12:00	7.5		790			6°C	Fres	h Water	١.	.001
							 		\neg	
							 		\dashv	
]			
		·		MON	IITORING F	READINGS				
TIME	PID REAL	NIG (nnr	<i>~</i> /	CG/15	EL (%)	HANBY SCREET	NING			
		אועט (אףי	'''		-L (70)	(standard/ppm)			+	
11:56	BZ=0			0		NR			+	
BG=Background;	BZ=Breath	ing Zone;	BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample (uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BARF	ROW LA	\B			ANCHO	RAGE	FIAR
ANALYSES			CON	TAINER	IS	ANALYSES	1	CONT	TAINE	RS
		W.	ATER		SOIL			WATER		SOIL
ТРН	/	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES	1					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 r	ni		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	C-BTEX 8020 ✓							250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/18/93</u>	***		SA	MPLE I	D: BTR-SS	313-SW01				
RADAR STATION: Barter WEATHER: Sunny, light breeze										
SITE/AOC: <u>Heated S</u>	Storage, SS	13	_ FEE	T FROM	I FIXED PO	DINT: <u>12</u> N	//AGNE	TIC HEADING	: East	t (true) ~90°
FIXED POINT: East										
SAMPLE MATRIX: [☐ Soil (S)	□ s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG, JI</u>										
TIME SAMPLED: 12										
SAMPLE DESCRIPTI		ENTS: R	unoff j	oond at	east side o	f culvert. Water has	slight	green tint. Min	or org	anic materia
suspended in sample								,		
SAMPLING METHOD	<u> </u>									
QA/QC SAMPLES C	OLLECTED									
☐ Trip Blank (TB)	Diami. (A)					e ID				·
☐ Ambient Condition	on Blank (Al	в) 🗆 н	ериса	te of Sc	Sample I					
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	TURBIDITY
	7.4		1.000							
12:01	7.4		1,080)		9°C	+			
										· ·· · · · · · · · · · · · · · · · · ·
							1			
				MON	IITORING F	READINGS				
			,	00"	- . (2.1)	HANBY SCREET	NING			
TIME	PID READ	DING (ppr	n)	CG/LE	EL (%)	(standard/ppm)				
11:59	BZ=0 / B	G=0		0		NR				
12:01	BZ=0			0		NR :				
BG=Background:	BZ=Breath	ina Zone	: BH=	Boreho	le: NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
				CHECK	ANALYSE	S REQUESTED	1			
			BAR	ROW LA	ΛB			ANCHO	RAGE	ELAB
ANALYSES	/		CON	TAINER	ıs.	ANALYSES	/	CON	TAINE	RS
ANALISES			 			AIVIETOES				0011
		W	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ						SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40 ı	ml		4 oz	DISS METALS	1	1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
11		1			t	I	1			<u> </u>

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/18/93</u>	·		_SAMPLE	ID: BTR-SS	313-SW02					
RADAR STATION: Barter WEATHER: Partly cloudy, breezy										
SITE/AOC: <u>Heated S</u>						MA	AGNETIC HEAI	DING:	~90°	
FIXED POINT: Secon										
SAMPLE MATRIX: [SAMPLERS: PG, JN	` '	☐ Sedi	iment (SD)) 🔳 :	Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>PG, JR</u> TIME SAMPLED: <u>13</u>			DEPTH (OE CAMPLE	(feet): Surface water	~r				
SAMPLE DESCRIPTION			-		• •		corner of heate	d stor	ane Photos	
11 and 12.	JIN C C		DIC 00	tea dix icc	ast 01 001.0	.1100	JOHIO! C	<u>u u</u>	<u>ago</u>	
SAMPLING METHOD): Dedicate	ed beaker								
QA/QC SAMPLES CO			ipment Bla	ank (EB)	☐ QA/QC Ex	 tra Vol	umes			
☐ Trip Blank (TB)		☐ Dup	licate of V	Vater Sample	e ID					
Ambient Conditio	n Blank (Al									
			W	ATER PARA	METERS					
TIME	PH	С	ONDUCTI	IVITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY	
13:28	7.9	1,	,260		9°C					
			МО	NITORING R	READINGS					
					HANBY SCREEN	JING		\top		
TIME	PID READ	DING (ppm)	CG/L	_EL (%)	(standard/ppm)	VIII C				
13:27	BZ=0		0		NR					
13:30	BZ=0		0		NR				:	
BG=Background;	BZ=Breath	ing Zone; B	H=Boreh	ole; NR=No	Readings; HS=Hea	ıdspac	e; S=Sample (uncor	ntained)	
			✓ CHEC	K ANALYSE!	S REQUESTED					
		В	ARROW L	AB			ANCHO	RAGE	E LAB	
ANALYSES		С	ONTAINE	RS	ANALYSES	1	CON	TAINE	RS	
		WAT	ER	SOIL			WATER		SOIL	
TPH	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
РСВ					SVOC (8270)	1	1 liter		8 oz	
PESTICIDES					TOTAL METALS	1	1 liter		8 oz	
HVOC 8010		1 x 40 ml		4 oz	DISS METALS	1	1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 ml			
					тос		500 ml		4 oz	
					TCLP		2 liters	 	2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/17/93</u>			SAM	APLE I	D: <u>BTR-SS</u>	S13-SW05				
RADAR STATION: Barter WEATHER: Sunny, winds ~20 mph										
SITE/AOC: Heated S	Storage, SS	13	FEI	ET FRO	OM FIXED	POINT: 100	MA	GNETIC HEA	DING:	North (true
FIXED POINT: 100 f	eet north o	f gravel ro	ad (Airr	port Ro	ad) at eas	t-west section of cre	ek.			
SAMPLE MATRIX: [☐ Se	ediment	t (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG, JI			0.55	TU 05	CAMPLE	(fact): Conface Mark				
TIME SAMPLED: 1						(feet): Surface Wat		rassio shoon		
SAMPLE DESCRIPTI	ON/COMM	EN 13. 30	ariu, Siii	is, yrav	reis (cours	e), mnorme, stams,	TIII IOI G	Jiganic Sheen	<u>. </u>	
SAMPLING METHOD	D: <u>Disposa</u>	ble spoon	ıs							
QA/QC SAMPLES C	OLLECTED	: 🗆 Ed	quipme	nt Blan	k (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)		□ Du	uplicate	of Wa	ter Sample	ID				
☐ Ambient Condition	n Blank (A									
				WAT	ER PARA	METERS				
TIME	PH		COND	UCTIVI	TY	TEMPERATURE	SPE	CIFIC GRAVI	ry -	TURBIDITY
11:25 8 920 7°C NR .2 of 1000										2 of 1000
				MONI	TORING R	EADINGS				
						HANBY SCREEN	IING			,
TIME	PID READ	DING (ppm	n) (CG/LE	L (%)	(standard/ppm)			_	
11:30	BG=0 / E	3Z=0		0		NR				······································
BG=Background;	BZ=Breath	ing Zone;	BH=B	orehole	e; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			√ Cl	HECK .	ANALYSES	REQUESTED				
			BARRO	OW LA	3			ANCHO	RAGE	LAB
ANALYSES	1		CONTA	AINERS	3	ANALYSES	/	CON	TAINE	RS
		WA	ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 m	nl		4 oz	DISS METALS	_	1 liter		
VOC-BTEX 8020 ✓ TDS 250 ml										
	TSS 250 ml									
					:	тос		500 ml		4 oz
	TCLP 2 liters 2 x 8 oz									

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/17/93</u>			SAMPLE	ID: BTR-SS	313-SW06					
RADAR STATION: Barter WEATHER: Sunny, cold										
SITE/AOC: Heated S							GNETIC HEAD	DING:	North (true)	
FIXED POINT: 60 fee										
SAMPLE MATRIX:	☐ Soil (S)	☐ Sedii	nent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: PG, JM				-						
TIME SAMPLED: 11										
SAMPLE DESCRIPTI				cted from n	niddepth with interfa	acing s	coop from sm	nall po	ool. Sample	
collected along south SAMPLING METHOD			1.				,			
QA/QC SAMPLES C			oment Bla			tro Vol				
Trip Blank (TB)	JLLEUILD				e ID					
	n Blank (A						T-10-10-10-10-10-10-10-10-10-10-10-10-10-			
Ambient Condition Blank (AB) Replicate of Soil Sample ID										
					METERS T	1		<u>I</u>		
TIME	PH	CC	ONDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY	
11:42	7.7	88	0		7°C	Fres	h Water	<u> </u>	001	
I										
			MON	NITORING R	EADINGS		T			
					HANBY SCREEN	NING				
TIME	PID READ	DING (ppm)	CG/L	EL (%)	(standard/ppm)					
11:40	BZ=0		0		NR					
11:45	BZ=0		0		NR					
BG=Background;	BZ=Breath	ning Zone; Bl		ole; NR=No	Readings; HS=Hea	adspace	e: S=Sample (unco	ntained)	
						•	, , ,	,-	,	
		T	/ CHECK	CANALYSES	S REQUESTED	ſ				
		BA	RROW L	AB			ANCHO	RAGE	LAB	
ANALYSES	1	co	ONTAINE	RS	ANALYSES	1	CON	TAINE	RS	
		WATE	ER	SOIL			WATER	•	SOIL	
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB]			SVOC (8270)		1 liter		8 oz	
PESTICIDES		l			TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020 ✓ TDS							250 ml			
					TSS		250 ml			
					TOC		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	
:										

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

ATE: 08/17/93 SAMPLE ID: BTR-SS13-SW07											
RADAR STATION: Barter WEATHER: Cloudy, breezy, 40°F											
SITE/AOC: Heated St	torage, SS	13	FEET FR	OM FIXED	POINT: Vicinity	N	MAGNETIC HE	EADING	G: North		
FIXED POINT: Airpor	t Road cul	vert outfall fa	acing north	٦.							
SAMPLE MATRIX:		☐ Sedi	ment (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: PG, JM			DEBTH O	ECAMPLE	(feet): Surface water	٠ <u></u>					
TIME SAMPLED: 11 SAMPLE DESCRIPTION							in sample nh	oto 31			
SAMPLE DESCRIPTION	JIN/COIVIIVI:	ENIS. SHE	en present	Wileli Saili	oling. Sheen not co	HECKEG	iii sairipie, pri	010 01			
SAMPLING METHOD	: Disposa	ble scoop									
QA/QC SAMPLES CO	DLLECTED	: 🗌 Equi	pment Bla	nk (EB)	QA/QC EX	tra Vol	umes				
☐ Trip Blank (TB)		☐ Dupl	icate of W	ater Sample	D						
☐ Ambient Condition	n Blank (Al	B) 🗌 Repl	icate of Sc	oil Sample II	D						
			WA	TER PARA	METERS	τ		-			
TIME	PH	C	ONDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	TURBIDITY		
12:00 7.5 790 6°C Fresh Water .001											
			MON	NITORING F	EADINGS						
HANBY SCREENING											
TIME	PIU REAL	OING (ppm)	CG/LI	EL (%)	(standard/ppm)		ļ				
								+			
BG=Background; E	BZ=Breath	ing Zone; B	I H=Boreho	ole; NR=No	Readings; HS=Hea	adspace	: e; S=Sample	uncor	ntained)		
					S REQUESTED				. 1		
		BA	ARROW LA		T T T T T T T T T T T T T T T T T T T		ANCHO	RAGE	LAB		
43413/050			ONTAINER	-	ANALYSES		CON	TAINE	RS		
ANALYSES		WAT		SOIL	ANALISES	/	WATER		SOIL		
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml	-	4 oz		
PCB	_	i iitei			SVOC (8270)		1 liter		8 oz		
PESTICIDES					TOTAL METALS		1 liter		8 oz		
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	1				TDS		250 ml				
					TSS		250 ml				
					тос		500 ml		4 oz		
	TCLP 2 liters 2 x 8 oz										

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

SAMPLE COLLECTION LOGS FOR THE GARAGE (SS14)

ATE: 08/21/93 SAMPLE ID: BTR-SS14-S01										
RADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool, 40's°F SITE/AOC: Garage SS14 FEET FROM FIXED POINT: 15 MAGNETIC HEADING: 60°										
									IEADI	NG: 60°
FIXED POINT: Corr										
drainage area.										
SAMPLE MATRIX:	Soil (S)		Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M	L									
TIME SAMPLED: 10					F SAMPLE	(feet): Surface 0-6				
SAMPLE DESCRIPTI	ON/COMM	ENTS: L	Dark br	own silt	ty clay, som	e gravel at base of	gravel	oad and tundr	a. Sar	nple location
is 15' easterly in line										
SAMPLING METHOD										
QA/QC SAMPLES C	OLLECTED				. ,					
						e ID				
Ambient Condition	n Blank (A	B) 🗆 f	Replica	te of So	oil Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	ry -	TURBIDITY
				MON	IITORING F	READINGS				
				10101	in or in or			·	-т	
TIME	PID READ	DING (pp	m)	CG/LI	EL (%)	HANBY SCREET (standard/ppm)	NING			
			<i>'</i>	,		, , , , , , , , , , , , , , , , , , , ,				
DO Barlana	57.5.4									
BG=Background;	BZ=Breath	ling Zone	e; BH=	Boreno	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
				CHECK	ANALYSES	S REQUESTED	,			
			BAR	ROW LA	ΑB			ANCHO	DRAGE	LAB
ANALYSES	1		CON	TAINEF	RS	ANALYSES	1	CON	TAINE	:RS
		v	VATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1				:	SVOC (8270)		1 liter		8 oz
PESTICIDES	1					TOTAL METALS		1 liter		8 oz
HVOC 8010										
VOC-BTEX 8020	1					TDS		250 ml		
				1		TSS		250 ml		
						тос		500 ml		4 oz
				·		TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/21/93</u>		S/	AMPLE	ID: <u>BTR-SS</u>	S14-S02-2.0					
ADAR STATION: Barter WEATHER: Sunny, clear, breezy, cool, 40's°F TE/AOC: SS14 Garage FEET FROM FIXED POINT: 15 MAGNETIC HEADING: 60°										
FIXED POINT: Corr	rugated cul-	vert pipe east :	side of	road, exten	ding from east end	of SS1	4 garage faci	ng tur	ndra into lov	
drainage area.										
SAMPLE MATRIX:	Soil (S)	☐ Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO, M										
TIME SAMPLED: 1										
SAMPLE DESCRIPT	ION/COMM	ENTS: Dark br	own silt	y clay, som	e gravel, some wate	r, base	of gravel pad	and tu	undra; strong	
apparent HC odors.	D. Hand o									
SAMPLING METHOL			DI-	-l- (ED)		tro Vol	umaa			
QA/QC SAMPLES C	OLLEGIED									
☐ Trip Blank (TB)☐ Ambient Condition	on Plank (A				e ID					
Ambient Condition	DI DIATIK (A	b) 🗀 neplica	ile oi sc	on Sample i						
			WA	TER PARA	METERS					
TIME	PH	CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	rurbidity	
		<u> </u>								
						+				
			MON	ITORING F	READINGS					
					HANBY SCREET	VING				
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)					
				····						
	<u> </u>							i		
BG=Background;	BZ=Breath	ning Zone; BH=	Boreho	ile; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)	
			CHECK	ANALYSE	S REQUESTED					
		DAD	ROW LA	\D			ANCHO	BAGE	IΔR	
		DAN	HOW LA				ANOTIC		- 670	
ANALYSES	1	CON	ITAINEF	RS	ANALYSES	1	CON	TAINE	RS	
		WATER	1	SOIL			WATER		SOIL	
TPH	1	1 liter	•	8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ	1				SVOC (8270)		1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS	,	1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 ml			
					тос		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	
li .	1	1		1	1				<u> </u>	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/21/93	ATE: 08/21/93 SAMPLE ID: BTR-SS14-S03-3										
	R STATION: Barter WEATHER: Sunny, clear, breezy, cool, 40's°F										
SITE/AOC: SS14 Ga									- IEADII	NG: <u>115°</u>	
FIXED POINT: From											
SAMPLE MATRIX:	Soil (S)	□ S	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO, M	L										
TIME SAMPLED: 11	1:00		DE	PTH O	F SAMPLE	(feet): 2.5-3.0					
SAMPLE DESCRIPTION	ON/COMM ^s	ENTS: D	ark bro	own silt	y clay, som	ne gravel, some rock	ч, арра	rent strong TC	E odd	ors.	
					* * * * * * * * * * * * * * * * * * * *						
SAMPLING METHOD): <u>Hand au</u>	iger									
QA/QC SAMPLES CO	OLLECTED					☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)						e ID					
Ambient Condition	n Blank (Al	B) 📕 Re	eplicat	te of So	il Sample II) BTR-SS14-S06					
				WA.	TER PARA	METERS					
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY	
			,								
				MON	ITORING R	EADINGS					
						HANBY SCREEN			T		
TIME	PID READ	JING (ppr	n)	CG/LE	L (%)	(standard/ppm)	• • =				
									\dashv		
	<u></u>										
BG=Background;	BZ=Breath	ing Zone;	; BH=	Boreho	le; NR=No	Readings; HS=Hea	ıdspace	e; S=Sample	(uncor	ntained)	
			J (CHECK	ANALYSES	S REQUESTED					
			PARE	ROW LA	D			ANCHO	- VOCE	IAR	
								ANOITO		: LAD	
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS	
		W.	ATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ	1					SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40 r	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml			
	TOC 500 ml 4 oz										
						TCLP		2 liters		2 x 8 oz	
								L			

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/21/93</u>			SA	AMPLE	ID: <u>BTR-SS</u>	514-S04-2	·····				
		er WEATHER: Sunny, warm, clear, slight breeze, high 40's°F									
SITE/AOC: <u>Garage S</u>	SS14	······································	F	EET F	ROM FIXED	POINT: <u>10</u>		MAGNETIC H	HEADI	NG: <u>235°</u>	
FIXED POINT: Fuel s	shut off val	ve west e	nd of	SS14 g	arage.						
SAMPLE MATRIX:	Soil (S)	□ S	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO, M											
TIME SAMPLED: 11						(feet): 1.5-2.0					
SAMPLE DESCRIPTION											
strong HC odors. Lo											
30' west and 32' sout			,000 p	opm am	ibient near i	nole. Insulation on e	electric	cables under	west e	nd or garage	
is deteriorating. Area			dico	osablo							
SAMPLING METHOD						U 04/00 F:					
QA/QC SAMPLES CO	DLLEGIED				` '	☐ QA/QC EX		umes			
☐ Trip Blank (TB)☐ Ambient Conditio	n Plank /A					e ID					
☐ Ambient Conditio	II DIAIIK (A	D) L N	ерпса	ie or sc	on Sample II	<u> </u>					
				WA	TER PARAI	METERS					
TIME PH			CONDUCTIVITY			TEMPERATURE	SPE	CIFIC GRAVI	TY 1	TURBIDITY	
	+										
				MON	IITORING R	EADINGS					
						HANBY SCREEN	VING				
TIME	PID READ	PID READING (ppm)			EL (%)	(standard/ppm)					
					 .		 .				
			l								
BG=Background;	BZ=Breath	ning Zone;	BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)	
			1	CHECK	ANALYSES	REQUESTED					
			BARROW LAB					ANCHO	DRAGE	LAB	
ANALYSES	1		CON	TAINER	es	ANALYSES	1	CON	ITAINE	RS	
ANALTSES					I	ANALISES	-			Τ	
		į W	ATER		SOIL			WATER	Ī	SOIL	
TPH	/	1 liter			8 oz	VOC (8260)	1	3 x 40 ml	<u></u>	4 oz	
PCB	1					SVOC (8270)	1	1 liter	T	8 oz	
PESTICIDES						TOTAL METALS	1	1 liter	<u> </u>	8 oz	
HVOC 8010	1	1 x 40 r	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				:	TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/21/93</u>			s	AMPLE	ID: BTR-SS	S14-S06-3					
RADAR STATION: <u>B</u>											
SITE/AOC: <u>SS14 Ga</u>								MAGNETIC H	EADI	NG: <u>115°</u>	
FIXED POINT: North											
SAMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)											
SAMPLERS: RO, M											
TIME SAMPLED: 11:00 DEPTH OF SAMPLE (feet): 2.5-3.0											
SAMPLE DESCRIPTION/COMMENTS: <u>Dark brown silty clay, some gravel, some rock, apparant strong TCE odors.</u>											
SAMPLING METHOD: Hand auger											
QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes											
☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID											
☐ Ambient Condition Blank (AB) ■ Replicate of Soil Sample ID <u>BTR-SS14-S03</u>											
					TER PARA						
	T 5						Τ				
TIME	PH CO			DUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY	
MONITORING DEADINGS											
MONITORING READINGS											
TIME	PID READING (ppm)			CG/LE	EL (%)	HANBY SCREET (standard/ppm)	NING				
						(======================================					
							_				
	,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample (unco	ntained)	
			1	CHECK	ANALYSE	S REQUESTED				·	
			BAR	ROW LA	\B			ANCHO	RAGI	GELAR	
ANALYSES	1		CON	TAINEF	15	ANALYSES	1	CONT	AINE	:RS	
	1	<u> </u>	VATER	7070	SOIL			WATER		SOIL	
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB	1					SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	
L.											

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/02/93</u>				D: <u>BTR-SS</u>					
RADAR STATION: <u>B</u>	Barter WEATHER: Cloudy, rain, 30°F								
SITE/AOC: SS14 Ga							MAGNETIC H	IEADIN	IG: <u>NE</u>
FIXED POINT: 50 fee									
SAMPLE MATRIX: I SAMPLERS: RO, M		☐ Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: <u>09</u>		D	FPTH O	F SAMPLE	(feet): 2				
SAMPLE DESCRIPTI						ible co	ntamination or	petrol	eum sheens
or odor. Photo 18 ar									
SAMPLING METHOD		ole scoop							
QA/QC SAMPLES C	OLLECTED	: 🗌 Equipn	nent Blar	nk (EB)	☐ QA/QC Ex	tra Volu	umes		
☐ Trip Blank (TB)					e ID				
☐ Ambient Condition	n Blank (Af	B) 🗌 Replica	ate of Sc	il Sample I	D				
			WA	TER PARA	METERS				
TIME	PH	CON	NDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ΥT	URBIDITY
			MON	IITORING F	READINGS				
TIME	PID READ	DING (ppm)	CG/LE	EL (%)	HANBY SCREEN (standard/ppm)	IING			
10:00	BZ=0		0		NR				
10.00			<u> </u>						
BG=Background;	BZ=Breath	ing Zone; BH:	=Boreho	ile; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
					S REQUESTED				
		T			Tiedolored		ANCHO	RAGE	LAB
			RROW LAB		1				
ANALYSES	/	CON	NTAINEF	RS T	ANALYSES	1		TAINE	
		WATER	?	SOIL			WATER		SOIL
ТРН	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/02/93</u>			SA	MPLE !	ID: BTR-SS	314-2S07-4					
RADAR STATION: _B											
SITE/AOC: <u>Garage </u>							MA	AGNETIC HEA	DING:	West (true)	
FIXED POINT: From	the center	post of w	est e	nd of ga	arage (mea:	sured parallel to bui	ding, g	enerally west).			
SAMPLE MATRIX:	Soil (S)	□ s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>RO, M</u>			····							,	
TIME SAMPLED: 10	0:45		DE	EPTH O	F SAMPLE	(feet): 4 feet to tun	dra				
SAMPLE DESCRIPTI											
and sod at 4 feet. Sa			feet.	Heavy r	etroleum o	dor and staining pre	esent.	Photo 22 is an	error	·	
SAMPLING METHOD				. 51	. (50)					*******	
QA/QC SAMPLES C	OLLECTED										
☐ Trip Blank (TB)	m Diamir (Al					e ID					
Ambient Condition	on Blank (Al	B) 🗆 H	eplica	te or Sc	Sample II	U					
				WA	TER PARA	METERS					
TIME PH C		CON	ONDUCTIVITY		TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY		
	Ī		·								
							1		_		
			····				_				
				MON	IITORING P	READINGS	·				
	HANBY SCREENING										
TIME	PID READ	DING (ppr	n)	CG/LE	EL (%)	(standard/ppm)					
10:45	BZ=0			0		NR					
50 5 1		. –									
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NH=No	Readings; HS=Hea	adspac	e; S=Sample (unco	ntained)	
			1	CHECK	ANALYSE	S REQUESTED					
			BAR	ARROW LAB				ANCHORAG		E LAB	
						1	_		TAIN!		
ANALYSES	/		CON	TAINER	12 	ANALYSES	1	CON	TAINE	:no	
		W	ATER		SOIL			WATER		SOIL	
TPH	1	1 liter	•		8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ						SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40 ı	m!		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS		250 mi			
				Д		TSS		250 ml			
										-	
						TOC		500 ml		4 oz	
					<u></u>	TCLP		2 liters		2 x 8 oz	
						TPH	1				

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/02/93</u>					S14-2S08-3				
RADAR STATION: B									
SITE/AOC: SS14 Ga						^	MAGNETIC HE	EADING	3: <u>NE ≈ 45</u>
FIXED POINT: The n	ortheast co								10.11
SAMPLE MATRIX: SAMPLERS: RT, ML	• •	☐ Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: 10		DI	EPTH O	F SAMPLE	(feet): 3		_		
SAMPLE DESCRIPTION						et. Sar	ds and grave	fill ma	terial.
This sample is BTR-S			<u> </u>	90, 10,000					
SAMPLING METHOD			sable sc	оор					
QA/QC SAMPLES CO					☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)		. ,			e ID				
☐ Ambient Condition	n Blank (Al	•		•					
		· · · · · · · · · · · · · · · · · · ·		TER PARA				· · · · · · · · · · · · · · · · · · ·	
TIME	PH	COV	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ	URBIDITY
Sample originally s	submitted to	o lab as 2\$06.	Should	be change	ed to 2S08.				
			MON	IITORING F	READINGS	<u> </u>			
HANBY SCREENING									
TIME	PID READ	DING (ppm)	m) CG/LEL (%)		(standard/ppm)				
BG=Background;	BZ=Breath	ning Zone; BH=	=Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
		1	CHECK	ANALYSE	S REQUESTED				
		BAR	ROW LA	ΛB			ANCHORAGE LAB		LAB
ANALYSES	1	CON	ITAINER	IS	ANALYSES	1	CON	TAINE	RS
		WATER	<u> </u>	SOIL			WATER		SOIL
ТРН	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 08/21/93		SAMPLE ID: BTR-SS14-SD01								
RADAR STATION: B							50's°F			
SITE/AOC: Garage S	SS14		FE	EET FRO	OM FIXED F	POINT: <u>22</u>	1	MAGNETIC HE	ADING	G: <u>275°</u>
FIXED POINT: South	west found	dation po	st of S	S13 hea	ated garage	e next to wooden wa	all.			****
SAMPLE MATRIX:	Soil (S)	= 9	Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M						· · · · · · · · · · · · · · · · · · ·				
TIME SAMPLED: 13										
SAMPLE DESCRIPTION		ENTS: _E	Black s	tained s	silty clay, lit	tle gravel, HC odor	in disc	harge area of	drain	pipe west o
SS13 heated storage					. 1. 1.					
SAMPLING ME						(FD)	1.00			
QA/QC SAMPL						7 -			i	
☐ Trip Blank (TB) ☐ Ambient Conditio										
Ambient Conditio	II DIANK (AI	p) L r	черпса	te or so	on Sample i	J				
				WA	TER PARA	METERS	. 			·
TIME PH			CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 7	TURBIDITY
							 		\dashv	
						+				
				MON	IITORING F	EADINGS				
						HANBY SCREET	NING			
TIME	PID READING (ppm)			CG/LE	EL (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BAR	ROW LA	ΛB			ANCHORAGE LAB		LAB
ANIALVOEC			CON	NTAINERS		ANIALVOTO		CON	TAINE	.DG
ANALYSES					<u> </u>	ANALYSES	<i></i>			l
		٧	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB	:					SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/21/93			SA	MPLE I	D: BTR-SS	14-SW01				
RADAR STATION: BE	arter		W	EATHER	R: Sunny, o	clear, mild, calm, 50)'s°F	, <u>.</u>		
SITE/AOC: SS14 Gar	rage			FEET F	ROM FIXED	D POINT: <u>35</u>		MAGNETIC	HEAD	NG: <u>230°</u>
FIXED POINT: South	west found	dation su	pport c	column	of SS13 he	ated storage next to	wood	en wall.		
SAMPLE MATRIX: □				nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, ML										
TIME SAMPLED: 13										
SAMPLE DESCRIPTION/COMMENTS: <u>Impounded drainage pond shallow, silty, slightly greenish brown. Sample collected along</u> Dank on far side of pond, west from SS13 heated storage building.										
]				
SAMPLING METHOD: Dedicated beaker, dipped bottle OA/OC SAMPLES COLLECTED: Fauitoment Blank (FB)										
QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Duplicate of Water Sample ID										
☐ Ambient Condition	n Blank (A								······································	
Ambient Condition	T DIGITIC (A	<i>b)</i>	српса							
	<u> </u>			WA	TER PARA	METERS	Υ ·			
TIME	PH	PH CONDUC			/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ .	TURBIDITY
13:50	7.9		1,390)		11°C				<0.0001
MONITORING READINGS										
			I	101014	TOTAL CO	HANBY SCREET	UNG		\Box	
TIME	TIME PID READING (pp			CG/LE	EL (%)	(standard/ppm)	NING			
BG=Background; E	R7-Breath	ina Zone	. BH-	Boreho	le: NR-No	Readings: HS-Hes	edenace	. S=Sample	(uncor	ntained)
BG-Background, E	JZ-Dream	ing Zone					иорио	5, 0=0ampio	(411001	namou,
			/ (CHECK	ANALYSES	REQUESTED				
			BARR	ROW LAB				ANCHORAGE		LAB
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		W	/ATER	:	SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB	/					SVOC (8270)	1	1 liter		8 oz
PESTICIDES	/					TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS	1	1 liter		
VOC-BTEX 8020	1				, 52	TDS		250 ml		
				I		TSS		250 ml		
						TOC		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
						100		L IIIOIO		2 7 3 02
										l

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

SAMPLE COLLECTION LOGS FOR THE WEATHER STATION BUILDING (SS15) (Formerly identified as AOC1)

DATE: <u>8-16-93</u>			SA	MPLE I	D: BTR-SS	15-S01				
RADAR STATION: <u>B</u>							40°F			
SITE/AOC: Weather	Station Bui	lding, SS	<u> 15 </u>	EET FF	ROM FIXED	POINT: <u>27</u>	M	AGNETIC HEA	ADING	: <u>270°</u>
FIXED POINT: Nor	heast base	corner	of the o	diesel ta	nk tower.					
SAMPLE MATRIX: 📕	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RO</u> ,	ML									
TIME SAMPLED: 16	3:20		DE	PTH O	F SAMPLE	(feet): <u>Surface</u>				
SAMPLE DESCRIPTION								ample on grav	el pad.	Forty mL, 8
oz bottle. Gravel pad				parated	gravel fron	n rock for sampling.		·		
SAMPLING METHOD										
QA/QC SAMPLES CO										
						ID				
Ambient Conditio	n Blank (Al	3) 🗆 F	(eplica	te of So	Sample II					
				WA	TER PARA	METERS				
TIME PH			CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ 1	URBIDITY
			CONDUCTIVITY							
							 			
						ļ				
				MON	IITORING R	FADINGS				
TIME	PID READ	ING (pp	ım)	CG/LE	EL (%)	HANBY SCREEN (standard/ppm)	NING			
					(/-/				1	
									\dashv	
						<u> </u>				
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)
				CHECK	ANALYSES	REQUESTED				
						, ,,Euglotes		ANIOUIC		
			BAR	SARROW LAB				ANCHO	HAGE	: LAB
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		V	VATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	- 1	3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		***
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8-16-93</u>		SA	MPLE !	D: BTR-S	S15-S02-2.0				
RADAR STATION: <u>B</u>	Barter	W	EATHER	R: Partly	cloudy, breezy, mild	, 40°F			
SITE/AOC: Weather	Station Bui	ilding, SS15	FEET F	ROM FIXE	POINT: 2	M/	AGNETIC HEA	DING:	<u>2°</u>
FIXED POINT: Nor	theast base	e corner of the	diesel ta	ink tower.			···		
SAMPLE MATRIX:	Soil (S)	☐ Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RO</u>									
TIME SAMPLED: 10									
SAMPLE DESCRIPTI								ock ar	d gravel. 40
mL, 8 oz bottle. Gra			avel, se	parated roc	ck from gravel for sa	mpling			
SAMPLING METHOD									
QA/QC SAMPLES C									
☐ Trip Blank (TB)	51 / /4	·			e ID				
Ambient Condition	on Blank (A	B) 🗀 Heblica	te of Sc	oli Sample i	U				
			WA	TER PARA	METERS				
TIME	PH	CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	TURBIDITY
						╅──	<u></u>		
						ļ			
			MON	IITORING F	READINGS				
	<u> </u>				HANBY SCREET	UNG		T	
TIME	PID READ	DING (ppm)	CG/LE	EL (%)	(standard/ppm)	MING			
	<u> </u>								
	<u> </u>						<u> </u>		
BG=Background;	BZ=Breath	ning Zone; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncoi	ntained)
		✓	CHECK	ANALYSE	S REQUESTED				
		BAR	ROW LA	AB			ANCHO	DRAGE	LAB
							001	TAINE	
ANALYSES	1	CON	ITAINER	S	ANALYSES	1	CON	TAINE	HS
		WATER		SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ					SVOC (8270)		1 liter		8 oz
PESTICIDES		1			TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
·									

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8-16-93</u>			s	MPLE I	D: <u>BTR-SS</u>	15-S03				
RADAR STATION: B										
SITE/AOC: Weather	Station Buil	ding, SS	315 F	EET FF	ROM FIXED	POINT: 10	M.	AGNETIC HEA	ADING	30°
FIXED POINT: Nor	theast corn	er of the	diesel	tank to	wer base.					
SAMPLE MATRIX:				nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RO</u>	, ML		······································							
TIME SAMPLED: 10										
SAMPLE DESCRIPTI the gravel pad samp								pad edge. S	ampie	collected or
SAMPLING METHOD				л. Зер	arateu rock	nom graver for sain	ipiiiig.			· · · · · · · · · · · · · · · · · · ·
QA/QC SAMPLES C				ent Blar	nk (FB)	□ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)	OLLEG (LD					e ID				
☐ Ambient Condition										
				WA [*]	TER PARA	METERS				
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γŢ	URBIDITY
-										
				-			-			
				MON	ITORING R	EADINGS				
						HANBY SCREEN	NING			
TIME	PID READ	ING (pp	m)	CG/LE	EL (%)	(standard/ppm)		<u> </u>		
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
		<u> </u>				S REQUESTED	<u>'</u>			
	1					REQUESTED				
			BAR	ROW LA	\В 			ANCHO	DRAGE	LAB
ANALYSES	1		CON	ITAINER	S	ANALYSES	1	CON	ITAINE	RS
		V	VATER	l	SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ						SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
							1			

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8-16-93</u>			SA	MPLE I	D: <u>BTR-SS</u>	S15-S04				
RADAR STATION: <u>B</u>										
SITE/AOC: Weather	Station Bui	lding, SS	15	FEET F	ROM FIXE	D POINT: <u>15</u>	M	AGNETIC HEA	DING	: <u>344°</u>
FIXED POINT: Nor	theast base	corner c	of the d	liesel ta	nk tower.					
SAMPLE MATRIX:		□ s	edimer	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO				·DT: 1 0/	- 0 4 4 5 1 5	//				
TIME SAMPLED: <u>17</u> SAMPLE DESCRIPTI						(feet): Surface	of gray	vel pad Grave	el pad	50% gravel
50% rock (cobble), s						or dieser tarik, cago	or gra	or paul Grav	31 pag	0070 9.0
SAMPLING METHOD				101 0411	, p					
QA/QC SAMPLES C				ent Blar	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)						e ID				
☐ Ambient Conditio	n Blank (Al	B) 🗌 R	eplicat	e of So	il Sample II	D				
				WA ⁻	TER PARAI	METERS				
TIME	PH		CON	DUCTIV	ΊΤΥ	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	URBIDITY
				MON	ITORING F	READINGS				
						HANBY SCREEN	IING			
TIME	PID READ	ING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
									-	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BARR	ROW LA	В			ANCHO	RAGE	LAB
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		W	/ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCI to pH <2; metals: HNO_3 to pH <2; Ice all samples to $4^{\circ}C$

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

RADAR STATION: Bar SITE/AOC: Weather S FIXED POINT: North SAMPLE MATRIX:	tation Bui east base Soil (S)	Iding, SS corner o	315) POINT: 21'6"	N.4	AGNETIC HEA	DINIC	
FIXED POINT: North	east base Soil (S)	corner o			ROM FIXE	POINT: 21'6"	B.4	AGNIETIC HEA	DINIC	
SAMPLE MATRIX:	Soil (S)		of dies			71 Olivi. <u>210</u>	171	AGNETIO HE	ADING	: <u>270°</u>
	, ,	Пе		<u>el tank t</u>	ower.					
	ML	3	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, N				-DTU O	- 0414015	(fact) Conford				
TIME SAMPLED: <u>17:0</u> SAMPLE DESCRIPTIOI						(feet): Surface	avol na	d 50% rock (or	abbla)	50% gravo
separated rock from gr				<u>yraver p</u>	au northwe	st of diesertank. Gr	zvei pa	U 30% TOCK (CI	Jobiej	, Ju % grave
SAMPLING METHOD:										
QA/QC SAMPLES COI				ont Plan	ok (EB)	☐ QA/QC Ex	tra Vol	ımoe		
☐ Trip Blank (TB)	LLEGIED				• •	ID				
☐ Ambient Condition	Blank (Al		•		•					·
	Diam (7 ti		TOPITOU		TER PARA					
							Τ		. T.	
TIME	PH		CON	DUCTIV	ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y]	URBIDITY
										· •
							-			
							ł			
				MON	ITORING R	EADINGS		 	· · · · · ·	
TIME	PID READ	NG (pp	ım)	CG/LE	EL (%)	HANBY SCREEN (standard/ppm)	IING			
BG=Background; B	Z=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			/	CHECK	ANALYSES	S REQUESTED				
			BARI	ROW LA	.В			ANCHO	RAGE	LAB
ANALYSES			CON	ITAINER	S	ANALYSES	/	CON	TAINE	RS
		V	VATER		SOIL		11 181	WATER	-	SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 mi		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-1-93</u>			SAMPLE	D: BIH-SS	S15-2S06				
RADAR STATION: <u>B</u>									
SITE/AOC: Weather:	Station Buil	ding, SS15	_ FEET F	ROM FIXE	O POINT: <u>23</u>	MA	GNETIC HEA	DING:	East (True)
FIXED POINT: 23 fo									
SAMPLE MATRIX:	Soil (S)	☐ Sedir	ment (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: ML,									
TIME SAMPLED: 14									
SAMPLE DESCRIPTION	ON/COMMI	ENTS: Fine	sands wit	h gravel. N	lo visual or odiferou	s medi	a. Sample co	llected	at 6 inches
below surface. Photo									
SAMPLING METHOD									
QA/QC SAMPLES CO	OLLECTED								
☐ Trip Blank (TB)		•		•	e ID				
Ambient Conditio	n Blank (Al	3) 🗌 Repli	cate of Sc	oil Sample I	D				
			WA	TER PARA	METERS				
TIME	PH		ONDUCTIV	/ITV	TEMPERATURE	SPE	CIFIC GRAVIT	γ T	URBIDITY
TIME	PA -	- 0	JNDOCTIV	/11 1	TEINITENATORIE	10, 2	01110 0117(411	` -	OHDIDIT.
						ļ			
						<u> </u>			
			MON	IITORING F	READINGS				
					HANBY SCREEN	IING			
TIME	PID READ	ING (ppm)	CG/LE	EL (%)	(standard/ppm)				
14:20	BZ = 0		0		NR				
							L	,	1 - 1 IV
BG=Background;	BZ=Breath	ing Zone; Bl	H=Boreho	ole; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	itained)
			✓ CHECK	ANALYSE	S REQUESTED				
		Б					ANCHO	BAGE	IΔR
		- BA	ARROW LA	4D	-		ANOTIC	- IAGE	
ANALYSES	1	C	ONTAINEF	RS	ANALYSES	>	CON	TAINE	RS
		WAT	FR .	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES				ē.	TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS	-	1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-1-93</u>			SA	MPLE I	D: BTR-SS	S15-2S07-2		· ·		
RADAR STATION: B										
SITE/AOC: Weather:	Station Bui	lding, SS	15	FEET	ROM FIXE	D POINT: 26	MAG	ENETIC HEAD	ING: _I	North (True
FIXED POINT: Sam	nple locatio	n 26 feet	north	of north	east corne	r of diesel tank towe	r.			
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: ML,	RT									
TIME SAMPLED: 14	1:45		DE	EPTH O	SAMPLE	(feet): 18 to 24 incl	nes			
SAMPLE DESCRIPTION	ON/COMMI	ENTS: F	ine sar	nds with	gravel fill. V	Vater at 4 inches. No	visual	or odiferous s	oils. C	lean washed
gravels. Collected at										
SAMPLING METHOD										
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)						e ID				
Ambient Condition	n Blank (Al	B) F	Replica	te of So	il Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ΥŢ	URBIDITY
							-			
	 			-			1		_	
					····					
				MON	ITORING F	READINGS				
TIME	PID READ	OING (pp	m)	CG/LE	L (%)	HANBY SCREEN (standard/ppm)	NING			
		- VI-I-	,		- (/-)	(2.00.000.00.00,				
									-	
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	e; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			ſ	CHECK	ANALYSE	S REQUESTED				
						TEGOLOTED		44011		
			BAR	ROW LA	 B			ANCHO)HAGE	: LAB
ANALYSES	1		CON	TAINER	S	ANALYSES	1	COV	ITAINE	RS
		٧	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml	L	
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-1-93</u>			SAMPLE	ID: BTR-S	S15-2S08-2				
RADAR STATION: <u>E</u>									
SITE/AOC: Weather						MAGN	ETIC HEADIN	G: <u>No</u>	rtheast (true
FIXED POINT: 23									·
SAMPLE MATRIX:	` '	☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: ML		r	NEDTI LO	CANADI E	(fact): 0				
TIME SAMPLED: <u>1</u> SAMPLE DESCRIPTI									
SAMPLE DESCRIPT	ION/COMIN	ENTS. Glave	i Willi IIII	e sailus, wa	aler al 2 reel.				
SAMPLING METHO	D: <u>Disposa</u>	ble spoon							
QA/QC SAMPLES C	OLLECTED	: 🗌 Equip	ment Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)					e ID				
☐ Ambient Condition	on Blank (A	B) 🗌 Replic	ate of So	oil Sample I	D				
	-		WA	TER PARA	METERS				
TIME	PH	СО	NDUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	7 7	TURBIDITY
						 			
						1			
						<u> </u>			
			ИОМ	NITORING F	READINGS				
TIME	PID REAL	DING (ppm)	CG/LI	EL (%)	HANBY SCREET (standard/ppm)	NING			
15:00	BZ = 0		0		NR				
-									
BG=Background;	BZ=Breath	ning Zone; BH	=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
					S REQUESTED				
		1			TEGOLOTED		ANCHO)BAGE	E I AR
		BAI	RROW LA	AB	_		ANOTIC	JNAGE	LAB
ANALYSES	1	co	NTAINEF	RS	ANALYSES	1	COV	TAINE	RS
		WATE	R	SOIL			WATER		SOIL
ТРН	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ]			SVOC (8270)		1 liter		8 oz
PESTICIDES		1			TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
1					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
L				<u> </u>	<u> </u>				<u> </u>

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

SAMPLE COLLECTION LOGS FOR THE WHITE ALICE FACILITY (SS16) (Formerly identified as AOC7)

DATE: <u>8-21-93</u>			SA	MPLE !	ID: BTR-SS	S16-S01				
RADAR STATION: <u>B</u>										
SITE/AOC: White Ali	ce Facility,	SS16	FE	EET FRO	OM FIXED I	POINT: 0	M	AGNETIC HEA	DING	Northwest
FIXED POINT: Mid	way betwee	entry :	<u>stairwa</u>	ly and e	end of east	transformer at front	door.			
SAMPLE MATRIX:				nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>JB</u>										
TIME SAMPLED: 10				EPTH O	F SAMPLE	(feet): 0.1 to 0.5				
SAMPLE DESCRIPTION	ON/COMMI	ENTS: <u>N</u>	<u>/ledium</u>	to fine	sand with s	mall pebbles. Samp	ole cole	lcted beneath	sand t	olasting sand
on surface. Collecte										
SAMPLING METHOD								· · · · · · · · · · · · · · · · · · ·		
QA/QC SAMPLES CO										
☐ Trip Blank (TB))uplica	ite of Wa	ater Sample	e ID		·		
☐ Ambient Conditio	n Blank (Al	3) LIF	leplica	te of So	oil Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	IDUCTIV	/ITV	TEMPERATURE	CDE	CIFIC GRAVIT	~ T	TUDDIDITY
TIME	 		CON	DOCTIV	/11 T	TEMPERATURE	SPE	CIFIC GRAVII	Y .	TURBIDITY
							ļ			
l					-	1			!_	
				MON	IITORING F	READINGS				
						HANBY SCREET	NING			
TIME	PID READ)ING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
									L	
BG=Background;	BZ=Breath	ing Zone	∍; BH=	:Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
						I		AN(O) (6		
			DAR	ROW LA	/B			ANCHO	JHAGE	: LAB
ANALYSES	1		CON	ITAINER	IS	ANALYSES	1	CON	TAINE	RS
		V	VATER		SOIL			WATER		SOIL
ТРН		1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
					-	TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8-21-93</u>			SA	MPLE I	D: BTR-SS	16-S02 (composite	of 3 gr	abs)		
RADAR STATION: B										
SITE/AOC: White Ali	ce Facility,	SS16	F6	EET FR	OM FIXED I	POINT: <u>6, 3, 6</u>		MAGNETIC HE	ADIN	G:
FIXED POINT:Eas		-								
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS:JB TIME SAMPLED: _10	2.00			-DTIL O	C CAMPLE	(fact): 0.1 to 0.5				
SAMPLE DESCRIPTION							eitae a	rranged in eve	n trian	ale with ane
pointed toward east				to iiie s	sariu Willi Si	nan pennies, sample	SILES U	iranged in eve	HILITA	gio With apo.
SAMPLING METHOD										
QA/QC SAMPLES CO				ent Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)						ID				
☐ Ambient Conditio	n Blank (Al	В) 🗆 ғ	Replica	te of Sc	il Sample II	o				
				·	TER PARAI					
TINAE	PH		CON	DUCTIV		TEMPERATURE	SPE	CIFIC GRAVIT	γ T-	TURBIDITY
TIME	l rn		CON	DOCTIV	'111	TEMPERATURE	1 31 6	OII IO GITAVIT	' '	TONDIDIT I
	_						<u> </u>			
				MON	ITORING P	FADINGS			•	
				10101		1	IINO		Ī	
TIME	PID READ	ING (nr	m)	CG/LF	EL (%)	HANBY SCREEN (standard/ppm)	NING			
111716	7 10 112712	упт о (РР	,,,,		(/-)	(3.0			_	
									<u></u>	
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	REQUESTED				
			BAR	ROW LA	λB			ANCHO	RAGE	LAB
,								001	T A I A I C	DC
ANALYSES	1		CON	TAINER	iS	ANALYSES	<i>-</i>	CON	TAINE	ns
		V	VATER		SOIL			WATER		SOIL
TPH		1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS	!	250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8-21-93</u>			SA	AMPLE !	ID: BTR-SS	S16-S03 (compsite o	of 2 gra	bs)		
RADAR STATION: <u>B</u>				EATHER	R: <u>Foggy</u>	, 40°F, gusts to 15 r	nph			
SITE/AOC: White Ali							M	IAGNETIC HEA	DING	i: Southeast
FIXED POINT: <u>Eas</u>	t side of so	outh door	r entry	way (w	ooden step	s).				
SAMPLE MATRIX:	Soil (S)		3edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>JB,</u>								.		
TIME SAMPLED: 19						` '				**************************************
SAMPLE DESCRIPTION				site of t	wo grab sai	mples one foot farth	er away	r from door tha	n Har	iby samples
Medium to fine sands										
SAMPLING METHOD										
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)						e ID				
☐ Ambient Conditio	n Blank (Al	B) F	leplica	te of Sc	oil Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Л ,	TURBIDITY
11171				0001.		TEIVII ETIATOTE	1 5, 5	OII IO GILAVII	' '	UIDDIII
	 						 		\dashv	
				·						
				1401	"TORNO F					
				MUN	ITORING P	EADINGS		Υ		
	DID DEAC	SINO (mm		00"	(2.1)	HANBY SCREEN	IING			
TIME	PID READ	JING (pp	m)	CG/LE	EL (%)	(standard/ppm)			$+\!\!\!-$	
	l.									
RG=Background	R7-Breath	ing Zone		-Roreho	NO NR-NO	Readings; HS=Hea	denaci	c: S-Sample (uncor	etained)
DG-Daongroune,	D2-010a	ing zonc	7, Di	-Doleilo	16, 1411-145	neauligs, rio-rio	ιασμασι	s, o=oampie (unco	Itairieu <i>j</i>
		•		CHECK	ANALYSES	S REQUESTED				
			BAR	ROW LA	- √B			ANCHO	RAGE	LAB
						†		001		
ANALYSES			CON	ITAINER	IS	ANALYSES	1	CON	TAINE	RS
			VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS	٠	250 ml		
				-		TSS		250 ml		
						TOC		500 ml		4 oz
			·			TCLP		2 liters		2 x 8 oz
						100		Z more		2 7 0 02
								<u> </u>		

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8-21-93			SAMPLE	ID: BTR-SS	S16-S04 (composite	of 2 gr	abs)		
RADAR STATION: B	arter		WEATHE	R: <u>Foggy</u>	, 40°F, gusts to 15 r	nph			<u></u>
SITE/AOC: White Ali							AGNETIC HEA	DING:	
FIXED POINT: Wes	st side of so	outh door en	try way st	eps. (wood	en steps)				
SAMPLE MATRIX:		☐ Sedir	nent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: JB,			DEDT: 1.0	5 044515	((t) - 0.1 to 0.5 to				
TIME SAMPLED: 19					(feet): 0.1 to 0.5 fe		u from door th	on Ho	nby cample
SAMPLE DESCRIPTION				wo grab sa	mples one loot latti	er awa	y Iroin door tii	an na	iny sample
were taken. Medium SAMPLING METHOD			pennies.						
QA/QC SAMPLES CO			mont Pla	nk (EB)		tra Vol	umas		
☐ Trip Blank (TB)	OLLEGIED				e ID				
☐ Ambient Condition	n Blank (Al								3.500
7 Amberil Condition	TO BIGHT (F			TER PARA					
TIME	PH	00	NDUCTI		TEMPERATURE	SPE	CIFIC GRAVIT	_γ ₁	TURBIDITY
INVE			NOUCH	VIII	TEINI ETIATORE	1 0, 5	0110 011/111	<u> </u>	OTIBIBITY
		<u> </u>				<u> </u>			
						ļ			
			МОМ	NITORING F	READINGS				
		•			HANBY SCREEN	NING			
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)			\dashv	
								_	
BG=Background;	BZ=Breath	ing Zone; Bh	l=Boreho	ole; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			✓ CHECK	(ANALYSE	S REQUESTED				
		ВА	RROW LA	AB			ANCHO	RAGE	LAB
ANALYSES	/	CC	NTAINEF	RS	ANALYSES	1	CON	TAINE	RS
		WATE	R	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020					TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

RADAR STATION: BTR
FIXED POINT: West door of White Alice building SAMPLE MATRIX: Soil (S) Sediment (SD) Surface Water (SW) Groundwater (GW) SAMPLERS: JB, DP TIME SAMPLED: 19:31 DEPTH OF SAMPLE (feet): 0.1 to 0.5 SAMPLE DESCRIPTION/COMMENTS: Sample sites arranged in a uniform triangle in front of door with apex pointing to doors center (see map). Medium to fine sand with small pebbles. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID
SAMPLE MATRIX: Soil (S) Sediment (SD) Surface Water (SW) Groundwater (GW) SAMPLERS: JB, DP TIME SAMPLED: 19:31 DEPTH OF SAMPLE (feet): 0.1 to 0.5 SAMPLE DESCRIPTION/COMMENTS: Sample sites arranged in a uniform triangle in front of door with apex pointing to doors center (see map). Medium to fine sand with small pebbles. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID
SAMPLERS:JB, DP TIME SAMPLED:19:31
TIME SAMPLED: 19:31 DEPTH OF SAMPLE (feet): 0.1 to 0.5 SAMPLE DESCRIPTION/COMMENTS: Sample sites arranged in a uniform triangle in front of door with apex pointing to doors center (see map). Medium to fine sand with small pebbles. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID
SAMPLE DESCRIPTION/COMMENTS: Sample sites arranged in a uniform triangle in front of door with apex pointing to doors center (see map). Medium to fine sand with small pebbles. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID
doors center (see map). Medium to fine sand with small pebbles. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID
SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED:
QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Duplicate of Water Sample ID
☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID
☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID ☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID
☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID
WATER PARAMETERS
TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAVITY TURBIC
MONITORING READINGS
HANBY SCREENING
TIME PID READING (ppm) CG/LEL (%) (standard/ppm)
BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (uncontained)
✓ CHECK ANALYSES REQUESTED
BARROW LAB ANCHORAGE LAB
ANALYSES / CONTAINERS ANALYSES / CONTAINERS
7.1.1.2.2.3
WATER SOIL WATER SO
TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml 4 oz
PCB ✓ SVOC (8270) 1 liter 8 oz
PESTICIDES TOTAL METALS 1 liter 8 oz
HVOC 8010
VOO DTEV COO
VOC-BTEX 8020 TDS 250 ml
TDS 250 ml TSS 250 ml
TSS 250 ml

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8-21-93</u>			SAMF	PLE ID: _E	BTR-SS	16-S06				
RADAR STATION: <u>B</u>	arter		_ WEAT	THER:	Foggy,	40°F, gusts to 15 r	nph			
SITE/AOC: White Ali										
FIXED POINT: Mid										of building
SAMPLE MATRIX:		☐ Se	ediment ((SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>JB,</u> TIME SAMPLED: <u>1</u> 9			DEDT	TH OE 8A	MDIC	(fact): 0.1 to 0.5				
SAMPLE DESCRIPTI	ON/COMMI	=NTS: Me	DLi i	fine sand	with sm	nali nebbles Sampl	e collec	ted beneath c	leaning	sand (sand
blasting aggregate).	011,00111111		oldin to	mio daria	William Off					
SAMPLING METHOD):	• • • • • • • • • • • • • • • • • • • •								
QA/QC SAMPLES C							tra Vol	umes		
☐ Trip Blank (TB)						ID				
☐ Ambient Condition	n Blank (Al									
				WATER						
TIME	PH		CONDU	CTIVITY		TEMPERATURE	SPE	CIFIC GRAVIT	γ T	URBIDITY
THVIC	1 711		CONDO	OTIVITI		TEIVII EI ATONE	0. 2	0.110 0.111111		
							1			
							ļ			
				MONITOR	RING RI	EADINGS				
						HANBY SCREEN	IING			
TIME	PID READ	DING (ppm	n) C	CG/LEL (%)		(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone;	BH=Bo	rehole; N	IR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
			∠ CH	IECK ANA	ALYSES	REQUESTED				
			BARRO					ANCHO	DRAGE	LAB
ANIA! VOES			CONTA			ANALYSES	/	CON	TAINE	RS
ANALYSES			ATER		SOIL	ANALIGES		WATER		SOIL
TPH		1 liter		8 0		VOC (8260)		3 x 40 ml		4 oz
PCB	1					SVOC (8270)	-	1 liter	<u> </u>	8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 n	ml	4 0	oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		***
						TOC		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8-21-93</u>			SAMPLE	ID: BTR-SS	316-S07						
	Barter WEATHER: 34°F, windy, cloudy Alice Facility, SS16 FEET FROM FIXED POINT: 2' MAGNETIC HEADING: North										
						MAG	NETIC HEADIN	1G: <u>1</u>	lorth		
FIXED POINT: Non							· .				
SAMPLE MATRIX:	Soil (S)	☐ Sedim	nent (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: <u>JB,</u>				**************************************							
TIME SAMPLED: 20					(feet): Surface 0 - 6						
SAMPLE DESCRIPTI			cted bet	ween White	Alice building and	Transf	ormer on north	n side	of building		
Sample collected bel											
SAMPLING METHOD	,		······································			\ (m)					
QA/QC SAMPLES CO	JLLEGIED					ttra voii	umes				
☐ Trip Blank (TB)☐ Ambient Conditio	n Riank (Al			•	D RTP SS16 S06		***************************************				
Ambient Conduct	II Diain (m	o) Enephic	ale of Sc	Sample 11	J <u>610-300</u>						
			WA	ATER PARA	METERS		***************************************	- 1 -	***************************************		
TIME	PH	CO	NDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	TURBIDITY		
						+		$\neg \vdash$			
								+			
			MON	NITORING R	IEADINGS						
					HANBY SCREEN	 VING		\top			
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)						
					T						
DC Dealers and	SZ Draeth	' 7-ne. DI		. ND N-			2 2				
BG=Background,	BZ=bream	ing zone; bri	=Rotetic)le; NH=NO	Readings; HS=Hea	adspace	e; S=Sample (uncor	ntainea)		
		٠	CHECK	(ANALYSES	S REQUESTED						
		BAI	RROW LA	AB			ANCHO	RAGE	E LAB		
ANALVEE		CO	NTAINEF		1		CON	TAINE	.DG		
ANALYSES	1			Ţ	ANALYSES	1		IAINL	ns		
		WATE	R	SOIL			WATER		SOIL		
ТРН	1	1 liter		8 oz	VOC (8260)		3 x 40 mi		4 oz		
PCB	1				SVOC (8270)		1 liter		8 oz		
PESTICIDES					TOTAL METALS		1 liter		8 oz		
HVOC 8010											
VOC-BTEX 8020				TDS		250 ml					
					TSS		250 ml				
					тос		500 ml		4 oz		
					TCLP		2 liters		2 x 8 oz		
11						1	l .		! '		

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-1-93</u>			SAN	APLE I	D: <u>BTR-S</u>	S16-2S08				
RADAR STATION: Barter WEATHER: 34°F, light winds, cloudy SITE/AOC: White Alice Facility, SS16 FEET FROM FIXED POINT: 1 MAGNETIC HEADING: South (true)										
SITE/AOC: White Ali	ce Facility,	SS16	FEE	ET FRO	M FIXED I	POINT: 1	MAGN	IETIC HEADIN	G: <u>Sc</u>	outh (true)
FIXED POINT: One	foot perpe	endicular to	o pad i	in front	of drain v	alve.	-15. **-			
SAMPLE MATRIX:						Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>DP</u>	JB									
TIME SAMPLED: 1							benea	th SS16-S07		
SAMPLE DESCRIPTI	ON/COMM	ENTS:								
SAMPLING METHOD): Disposa	ble scoop								
QA/QC SAMPLES CO	OLLECTED	: 🗆 Eq	quipme	nt Blan	k (EB)	☐ QA/QC E	tra Vol	umes		
☐ Trip Blank (TB)						e ID				
☐ Ambient Conditio	n Blank (A									
				WAT	TER PARA	METERS				
TIME	PH		COND	UCTIV	ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
				MONI	TORING F	READINGS				
MONITORING READINGS HANBY SCREENING										
TIME	PID READ	DING (ppm	n)	CG/LE	L (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone;	BH=B	orehol	e; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			√ C	HECK	ANALYSE	S REQUESTED				
			BARRO	OW LA	В			ANCHO	RAGE	LAB
ANALYSES	1		CONT	AINER	3	ANALYSES	1	CON	TAINE	RS
		WA	ATER		SOIL			WATER		SOIL
TPH		1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 m	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9-1-93</u>			SAMPLE	ID: BTR-SS	316-2S09					
RADAR STATION: <u>B</u>	ADAR STATION: Barter WEATHER: 34°F, light winds, cloudy									
SITE/AOC: White Ali	ce Facility,	SS16	FEET FRO)M FIXED P	OINT: <u>5.5</u>	M/	AGNETIC HEA	DING:	Easterly	
FIXED POINT: SE co	orner of we	stern transfo	rmer pad.							
SAMPLE MATRIX: 📕	Soil (S)	☐ Sedi	ment (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>DP,</u>										
TIME SAMPLED: 15					(feet): 0.1 to 0.4					
SAMPLE DESCRIPTI						<u>oeneath</u>	n enclosed Arc	<u>ctic er</u>	ntrance way	
Measure-easterly in li			of pad fro	m southeas	t corner.					
SAMPLING METHOD			DI-	. (55)						
QA/QC SAMPLES CO	JLLEGIED	•					umes			
☐ Trip Blank (TB)☐ Ambient Conditio	n Rlank (A				e ID					
Ambien concile	II DIGIN (U) [110p.								
			WA	TER PARA	METERS	1				
TIME	PH	C	ONDUCTIV	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y	TURBIDITY	
	 					+				
	+					-		\dashv		
			·							
			MON	NITORING R	EADINGS					
					HANBY SCREEN					
TIME	PID READ	DING (ppm)	CG/LEL (%)		(standard/ppm)					
								\top		
50 5 4	== 0		<u></u>							
BG=Background;	BZ=Breatn	ing Zone; bi	H=Boreno	ole; NH=No	Readings; HS=Hea	idspace	e; S=Sample (uncor	ntained)	
			✓ CHECK	(ANALYSES	S REQUESTED					
		B/	ARROW LA	————— 4В			ANCHO	RAGE	LAB	
ANALYSES			ONTAINER	1S T	ANALYSES	1	CUN	TAINE	RS I	
		WAT	ER	SOIL			WATER		SOIL	
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB	1	•			SVOC (8270)		1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020		1			TDS		250 ml			
					TSS		250 ml			
			**		тос		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 9-1-93										
RADAR STATION: Barter WEATHER: 34°F, windy, cloudy										
SITE/AOC: White Alic	ce Facility,	SS16	FE	ET FRO	M FIXED PO	DINT: <u>5.5</u>	MA	GNETIC HEA	DING:	South
FIXED POINT: From	n edge of t	ransform	er pac	in line	with valved	drain line.				
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>JB,</u>										
TIME SAMPLED: 15										
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>N</u>	/lixed t	o coarse	e sand and	small pebble grave				
SAMPLING METHOD): Dienosal	ale scee								
QA/QC SAMPLES CO				ont Blan	ok (ER)	□ OA/OC Ex	tra Volu	ımes		
☐ Trip Blank (TB)	JLLEU I ED.					ID	10 101			
☐ Ambient Conditio	n Blank (Al		•							
			•		TER PARAN					
			0011				CDE	CIFIC GRAVIT	$\sqrt{1}$	URBIDITY
TIME	PH	:	CON	DUCTIV	IIY	TEMPERATURE	SPE	CIFIC GRAVII		ווטוטחט
							<u> </u>			
				MON	ITORING R	EADINGS			- 1	
			,			HANBY SCREEN	IING			
TIME	PID READ	ING (pp	m)	CG/LE	L (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
						REQUESTED				
	- 					REQUESTED		****		
			BAR	ROW LA	.В 			ANCHO	HAGE	: LAB
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		٧	VATER		SOIL			WATER		SOIL
TPH		1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
TSS						250 ml				
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9-1-93</u>			S	AMPLE	ID: BTR-SS	S16-2S11				
RADAR STATION: B	SAMPLE ID: BTR-SS16-2S11 WEATHER: e Alice Facility, SS16 FEET FROM FIXED POINT: MAGNETIC HEADING: South (true)									
SITE/AOC: White Alie	ce Facility,	SS16	F	EET FRO	OM FIXED F	POINT:	MAG	NETIC HEADI	NG: <u>S</u>	outh (true)
FIXED POINT: Edge	of north si	de of buil	lding							
SAMPLE MATRIX:	Soil (S)	□s	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: JB, DP										
TIME SAMPLED:1							······			
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>M</u>	lixed s	sand an	d gravel.					
SAMPLING METHOD	: Disposa	ble scoor		····						
QA/QC SAMPLES CO				ent Bla	nk (FR)		rtra Vol	IIMae		
☐ Trip Blank (TB)) ID				
☐ Ambient Condition	n Blank (A	B) R R	eplica	te of Sc	il Sample II	D BTR-SS16-S10				·· · · · · · · · · · · · · · · · · · ·
				WA	TER PARAI	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ	TURBIDITY
							 			
							 		_	
									\dashv	
				MON	IITORING R	EADINGS				
						HANBY SCREEN	NING			
TIME	PID READ	DING (ppr	n)	CG/LE	EL (%)	(standard/ppm)				
BG=Background: [3Z=Breath	ina Zone:	 : BH=	:Boreho	le: NR=No	Readings; HS=Hea	denac	e: S-Sample	(unco	ntained)
<u> </u>				2010110	.0, 1111-110	110aago, 110—110a	шорио	e, o-oumple	(dilico	itairiea)
				CHECK	ANALYSES	REQUESTED				
			BAR	ROW LA	lΒ			ANCHO	RAGE	E LAB
ANALYSES	/		CON	TAINER	S	ANALYSES	/	CON	TAINE	RS
		W	ATER		SOIL			WATER		SOIL
TPH		1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 r	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-1-93</u>		s							
RADAR STATION: <u>B</u>	arter	v	/EATHEF	R: <u>34°F, l</u>	ght wind, cloudy				
SITE/AOC: White Alic	ce Facility,	<u>SS16</u> F	EET FRO	M FIXED F	OINT: ~3 feet	N	IAGNETIC HE	ADING	i: <u>330°</u>
FIXED POINT: 12.5									
SAMPLE MATRIX: 📕	Soil (S)	☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>DP,</u>									
TIME SAMPLED: 15					(feet): 0 - 0.5 feet				
SAMPLE DESCRIPTION	ON/COMMI	ENTS: Sand	with sma	ll pebble gr	avel		·		
0.1.101.110.14571.100	D'	-1							
SAMPLING METHOD				-1. (ED)	[] 04/00 Fy	tra Vali	ımos		
QA/QC SAMPLES CO	DLLECTED:								
☐ Trip Blank (TB)	- Di (Af			· ·	e ID				
☐ Ambient Conditio	n Blank (Al	5) Li Replic	ale of Sc	iii Sample ii					
			WA	TER PARA	METERS				
TIME	PH	COI	NDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ Τ	URBIDITY
1110162									
	-					<u> </u>			
				UTO DINIO .	TABINIOS.				
			MON	IITORING F	IEADINGS		I		
					HANBY SCREEN	IING			
TIME	PID READ	DING (ppm)	CG/LE	EL (%)	(standard/ppm)				
DC Pooleground	D7_Brooth	ing Zono: BH	Rorobo	Je: NR-No	Readings; HS=Hea	ndspace	e: S=Sample	(uncor	ntained)
BG=Background,	DZ=Dream	ang zone, bit	_Dorent	ile, MIT=140	ricadings, rio—rios	аорио	5, G Gampio	(4.1.4	
			CHECK	ANALYSE	S REQUESTED				
		BAF	RROW LA	λB			ANCHO	RAGE	LAB
							CON	TAINE	RS
ANALYSES	/	CO	NTAINEF	is .	ANALYSES	1	CON	IAINE	
		WATE	R	SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1				SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml	T	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020		1			TDS		250 ml		
					TSS		250 ml		
					TOC		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9-1-93</u>						S16-2S13-1.5				
RADAR STATION: B	STATION: Barter WEATHER: 34°F, light winds, partly cloudy									
SITE/AOC: White Ali								GNETIC HEAD	OING:	SW
FIXED POINT: Conc	rete pad of	transfor	mer	· · · · · · · · · · · · · · · · · · ·						
SAMPLE MATRIX: I SAMPLERS: <u>JB, DF</u>			3edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: <u>15, UP</u>			ח	EDTH O	E CAMPIE	(feet): 1 to 1.5				
SAMPLE DESCRIPTI						(1861): 1 10 1.5				
SAMI LE DESCRI TI	ON/OCIVIN	ENISv	ver yre	AVEILY 20	anu.				-	
SAMPLING METHOD): <u>Disposa</u>	ble scoo	p							
QA/QC SAMPLES C	OLLECTED	r: 📮 E	Equipm	nent Bla	nk (EB)	☐ QA/QC EX	dra Vol	umes		
☐ Trip Blank (TB)			Ouplica	ite of W	ater Sample	e ID				
☐ Ambient Conditio	n Blank (Al									
				WA	TER PARA	METERS				
TIME	PH		CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ 7	TURBIDITY
							<u>] </u>			
	l									
				MON	IITORING R	EADINGS				
						HANBY SCREEN			\top	
TIME	PID READ	JING (pp	m)	CG/LEL (%)		(standard/ppm)				
		·				T				
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	ole; NR=No	Readings; HS=Hea	adspac	ə; S=Sample	(uncor	ntained)
			/	CHECK	ANALYSES	S REQUESTED			·	
				ROW LA				ANCHO	PAGE	I AR
ANALVOTO				ITAINER						
ANALYSES	1					ANALYSES	1		TAINE	1
			VATER		SOIL			WATER		SOIL
TPH		1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	1					SVOC (8270)		1 liter		8 oz
PESTICIDES		<u> </u>		1		TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

SAMPLE COLLECTION LOGS FOR THE POL TANKS (ST17) (Formerly identified as AOC8)

DATE: <u>8/20/93</u>			SA	AMPLE	ID: BTR-ST	Γ17-S02				
RADAR STATION: <u>B</u>	Barter WEATHER: Sunny, clear, cool, breezy. High 30's°F									
SITE/AOC: POL Tan	iks, ST17		FE	EET FRO	OM FIXED I	POINT: <u>18</u>	N	MAGNETIC HE	ADING	3: <u>55°</u>
FIXED POINT: The e	ast corner	of the sc	outhern	ı suppo	rt of the exp	posed pipeline.				
SAMPLE MATRIX:	` '	□s	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RO, M</u>								***************************************		
TIME SAMPLED: 10			-			(feet): Surface 0-6"				
SAMPLE DESCRIPTI							vel/area	a at head of di	rainag	e ditch, bas
of berm gravel. Note				nagnetic	c readings.					
SAMPLING METHOD										
QA/QC SAMPLES CO	OLLECTED				• •					
☐ Trip Blank (TB)						e ID				
☐ Ambient Conditio	n Blank (A	.B) 🗌 R	łeplica:	te of Sc	oil Sample I	D				
			_	WA	TER PARAI	METERS				
TIME	PH		CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	√ T-	TURBIDITY
	1					TEIM EIDTOILE	+	OII TO GITAVIT	-	
									-	
	1		İ							
				MON	IITORING R	DEADINGS				
	<u></u>			WON	III ONING H	T		Τ		
TIME	L DID DEAI	DING (no	\) CG/LEL (%)		HANBY SCREET	VING			
IIIVIC	PID REAL	ррі Биіс	<u>''')</u>			(standard/ppm)			-	
	ı									
BG=Background	B7=Breath	ning Zone	 BH=	Boreho	le: NR=No	Readings; HS=Hea	adenaci	e: S-Sample	/uncor	ntained)
							аорио	s, o-oumpie	(di loci	itali loa)
	<u> </u>	Т		CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	√ B			ANCHO	RAGE	E LAB
ANALYSES	1		CON	ITAINER	RS	ANALYSES	1	CON	TAINE	BS
7111121020	- •	 			T	ANALIOLO				T
			VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB		1				SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1			<u> </u>		TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
	TCLP		2 liters		2 x 8 oz					
								-		
					•	i contract of the contract of				

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8/20/93</u>					D: BTR-ST					
RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy. High 30's°F SITE/AOC: POL Tanks, ST17 FEET FROM FIXED POINT: 148 MAGNETIC HEADING: 55°										
									C HEA	ADING: <u>55°</u>
FIXED POINT: South	neast suppo	ort of the	south	insulate	d sewage	drain pipe, north of	POL be	erm.		
SAMPLE MATRIX:	, ,		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M				TOTU O	- CAMPLE	(fact): Confoco O CII				
TIME SAMPLED: 10								hydrocarbon o	dor alc	na shorelin
SAMPLE DESCRIPTION	ON/COMINE	=N15: <u>BI</u>	ack orc	anic siii	y ciay. Sirc	ing septic odor (redu	Ciriy), r	Tyurocarborro	uoi aic	nig snorenn
of lagoon. SAMPLING METHOD): Dienosal	blo scoo	<u> </u>							
				ant Dia	-l. (CD)	☐ QA/QC Ex	tro Vol	umoc		
QA/QC SAMPLES C	OLLECTED					e ID				
☐ Trip Blank (TB)☐ Ambient Conditio	n Blank (Al									
Minble it Conditio	III DIAITK (AI	b) L r	replica	16 01 30	iii Garripie i					
				WA	TER PARA	METERS	т		 	
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 7	TURBIDITY
			!							
-							 		1	
			· · · · · · · · · · · · · · · · · · ·							
				MON	ITORING F	READINGS				
						HANBY SCREET	NING			
TIME	PID READ	ING (pp	m)	CG/LE	L (%)	(standard/ppm)			<u> </u>	
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BARF	ROW LA	ιB			ANCHO	RAGE	LAB
ANALYSES	/		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		٧	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
				-		TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8/20/93</u>			SA	MPLE	D: BTR-ST	17-S04				
RADAR STATION: <u>B</u>	arter		WI	EATHER	R: Sunny, o	clear, cool, breezy.				
SITE/AOC: <u>POL Tan</u>	ks, ST17		F	EET FF	OM FIXED	POINT: 51		MAGNETIC H	EADIN	IG: <u>60°</u>
FIXED POINT: South	neast suppo	ort of the	south	insulate	ed sewage	drain pipe, north of	POL be	erm.	<u> </u>	
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RO, M</u>								····		
TIME SAMPLED: 11										
SAMPLE DESCRIPTI			ack or	rganic s	ilty clay mu	ick, reducing enviro	nment,	strong hydrod	carbor	odor, sligh
septic odor. Leacha										
SAMPLING METHOD										
QA/QC SAMPLES C		_					tra Vol	umes		
☐ Trip Blank (TB)			•		•	e ID				
Ambient Conditio	n Blank (Al	B) 🔳 R	eplica	te of Sc	il Sample II	D <u>BTR-ST17-S06</u>				
		· · · · · · · · · · · · · · · · · · ·		WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE SPEC			γ -	TURBIDITY
						<u> </u>	 		_	
	<u> </u>								-	
				MON	IITORING R	EADINGS				
						HANBY SCREEN	NING			
TIME	PID READ	NG (pp	m)	CG/LE	EL (%)	(standard/ppm)	*****			
						<u> </u>			l	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncoi	ntained)
			1	CHECK	ANALYSES	S REQUESTED		-		
			BARE	ROW LA	λB			ANCHO	RAGE	- LAB
ANALYSES			CON	TAINER	IS	ANALYSES	<u> </u>	CON	TAINE	:RS
		W	/ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB						SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
TS						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/20/93			SA	MPLE I	D: BTR-ST	17-S05-1.5					
RADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy. High 30's°F variable SITE/AOC: POL Tanks_ST17 FEET FROM FIXED POINT: 73 MAGNETIC HEADING: 5°											
								MAGNETIC H			
FIXED POINT: From	the NW co	orner fou	ndatior	n post c	of the storage	ge building 05. Non	hwest	of DLM wareh	ouse t	ouilding #68	
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO, M	L										
TIME SAMPLED: 11						(feet): 1.5 hand au					
SAMPLE DESCRIPTION											
(equivalent to 15% of			isible s	igns of	HC contain	nination. Steel in are	ea may	affect magnet	ic rea	dings.	
SAMPLING METHOD											
QA/QC SAMPLES CO	OLLECTED					☐ QA/QC Ex					
☐ Trip Blank (TB)						e ID					
Ambient Conditio	n Blank (Al	B) LJ F	Replica	te of Sc	oil Sample I	D					
				WA	TER PARA	METERS					
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γΙ	TURBIDITY	
111111	+	· · · · · · · · · · · · · · · · · · ·	0011	50011		12 2.0 (70.12	+				
							-				
1											
	MONITORING READINGS										
						HANBY SCREEN	NING				
TIME	PID READ	ING (pp	m)	CG/LE	EL (%)	(standard/ppm)					
·											
50 5 1	D7 D ===4b		- DII	D = -= l= =	In ND No	Dondings: UC Hos	danaa	o: C-Cample	(unaar	atainad)	
BG=Background;	BZ=Breath	ing zone	e; bn=	Boreno	ie, NR=NO	Readings; HS=Hea	uspac	e, 3-3ample	(GIICOI	itairieu)	
			1	CHECK	ANALYSES	S REQUESTED					
			BARE	ROW LA	ΔB			ANCHO	RAGE	LAB	
						-		001	TAINIE	.DO	
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	HS	
		V	VATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ						SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40	mi		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS ·		250 ml			
						TSS		250 ml			
						TOC		500 ml		4 oz	
		,				TCLP		2 liters		2 x 8 oz	
		L			L	J				L	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8/20/93</u>			_SAMPLE	ID: BTR-ST	17-S06				
RADAR STATION: B									
SITE/AOC: POL Tan	ıks, ST17		FEET	FROM FIX	ED POINT: 51		MAGNETIC	HEA	DING: <u>60°</u>
FIXED POINT: South									
SAMPLE MATRIX:	Soil (S)	☐ Sec	diment (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M	L	·							
TIME SAMPLED: 1							*		
SAMPLE DESCRIPTI		ENTS: <u>Blac</u>	ck organic s	silty clay mu	ick, reducing enviro	nment,	strong hydrod	carbor	odor, sligh
septic odor, some gr									
SAMPLING METHOD									
QA/QC SAMPLES CO	OLLECTED		-			tra Vol	umes		
☐ Trip Blank (TB)				•	e ID				
Ambient Conditio	on Blank (Al	B) Rep	olicate of Sc	oil Sample II	D_BTR-ST17-S04				
			WA	TER PARA	METERS				
TIME	PH	0	CONDUCTIV	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ	URBIDITY
						 			
						 		-	
		-	МОМ	NITORING R	EADINGS				
HANBY SCREENING									
TIME	PID READ	ING (ppm)	CG/LI	EL (%)	(standard/ppm)				
	<u>, , , , , , , , , , , , , , , , , , , </u>								
BG=Background;	BZ=Breath	ing Zone; E	3H=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			✓ CHECK	(ANALYSES	REQUESTED				
		. 8	BARROW LA	٩В			ANCHORAGE LAB		LAB
ANALYSES			CONTAINER		ANIALVEEC	,	CON	TAINE	RS
ANALISES	7				ANALYSES			IAINL	
		WA ⁻	TER	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB					SVOC (8270)	1	1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

SAMPLE COLLECTION LOGS FOR THE FUEL TANKS (ST18) (Formerly identified as AOC9)

DATE: <u>08/20/93</u>			SA	MPLE	ID: <u>BTR-ST</u>	18-S01				
RADAR STATION: <u>E</u>	Barter		W	EATHER	R: Sunny, o	clear, breezy, cool 4	0°F			
SITE/AOC: MOGAS	Storage, S	T18		FEE	T FROM FIX	(ED POINT: 51		MAGNETI	C HEA	ADING: <u>10°</u>
FIXED POINT: From	the northe	ast corner	of the	norther	n MOGAS t	ank support column	to inter	sect east west	center	line of tanks
SAMPLE MATRIX:	• •	□s	Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RO, M</u> TIME SAMPLED: <u>1</u> :			D.	DTU O	C CAMPI C	(fact): Curfoco O CII		**************************************		
SAMPLE DESCRIPT								Prosonce of	, UC c	odor may be
confused with nearb		_								
SAMPLING METHOD				00 /0 30	ariu, 50% gi	avei, 10% CODDIE.	Sample	tu corisists or	Sariu	and graver.
QA/QC SAMPLES C	•			ent Bla	nk (ER)	☐ QA/QC Ex	tra Vol	ımae		
☐ Trip Blank (TB)	OLLEGIEL									
☐ Ambient Condition	n Blank (Δ								·····	
Ambient Genatic	on Blank (A		replica		JII Gampie II					
				WA	TER PARAI	METERS				
TIME	PH	İ	CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	7 T	TURBIDITY
							-			
									\perp	
		į								
				MON	IITORING F	EADINGS				
						HANBY SCREET	VING			
TIME PID READING			m)	CG/LE	EL (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ning Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BAR	ROW LA	√B		·	ANCHO	RAGE	E LAB
ANALYSES	1		CON	TAINERS		ANALYSES	1	CON	TAINE	RS
		v	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	/			<u> </u>		TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/20/93</u>										
RADAR STATION: <u>B</u>										
SITE/AOC: MOGAS										
FIXED POINT: From	the northea	ast corner su	pport colu	mn of the n	orthern MOGAS tan	k inters	ecting easterly	line fr	om southern	
end of tank.	 									
SAMPLE MATRIX:	Soil (S)	☐ Sedi	ment (SD)		Surface Water (SW)		Groundwater (GW)		
SAMPLERS: <u>RO, M</u>										
TIME SAMPLED: 19	9:20		DEPTH O	F SAMPLE	(feet): Surface 0-6"					
SAMPLE DESCRIPTION								tamin	ant in grave	
approximately 5' from			oase of be	erm 45% gra	avel, 35% cobble, 20)% san	d and silt.			
SAMPLING METHOD	-			. (==)						
QA/QC SAMPLES CO										
☐ Trip Blank (TB)	Di (A)				e ID					
Ambient Conditio	n Blank (Al	в) ⊔ нері	cate of Sc	oii Sample i						
			WA	TER PARA	METERS					
TIME	PH CON			/ITY	TEMPERATURE	SPE	CIFIC GRAVITY		TURBIDITY	
MONITORING READINGS										
HANBY SCREENING										
TIME	PID READ	ING (ppm)	CG/LI	EL (%)	(standard/ppm)			_		
								_		
	D.7. D	: 7 0	l Daraba	io ND No	Dondings: US-Ho	ndenae	o: S—Sample (uncor	ntained)	
BG=Background;	BZ=Breath	ing Zone; B	-=Borenc	Die; NR=NO	Readings; HS=Hea	auspac	e, 3=3ample (uricoi	itairieu)	
			✓ CHECK	(ANALYSE	S REQUESTED					
		BA	ARROW LA	AB			ANCHORAGE LAB		LAB	
					1		0017	- 4 1 1 1 5	.00	
ANALYSES	1	C	ONTAINEF	RS	ANALYSES	/	CONT	AINE	:HS	
		WAT	ER	SOIL			WATER		SOIL	
TPH	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
PCB					SVOC (8270)	1	1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 ml			
					тос	1	500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 08/20/93			_SAMPLE	ID: BTR-ST	Γ18-S03					
	ON: Barter WEATHER: Sunny, clear, breezy, cool 40's°F									
SITE/AOC: MOGAS							GNETIC HEADIN	۱G: ِ	South (true)	
FIXED POINT: From	the northe	ast corner	support col	umn of the	northern MOGAS st	orage t	ank.			
SAMPLE MATRIX:	Soil (S)	☐ Sed	diment (SD)		Surface Water (SW)		Groundwater (C	(WE		
SAMPLERS: <u>RO, M</u>										
TIME SAMPLED: 19	9:00		_ DEPTH C	F SAMPLE	(feet): Surface 0-6"					
SAMPLE DESCRIPTI								urfac	e material in	
reddish stained mate	rial 45% co	bble, 45%	gravel. Sar	mpled grave						
					SAMPLING METH 			<u> </u>		
QA/QC SAMPLES C	OLLECTED	`	uipment Bla	` '	☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)		·		•	e ID	····			 -	
☐ Ambient Condition	on Blank (A	B) 🔳 Rep	olicate of So	oil Sample I	D BTR-ST18-S10					
			WA	ATER PARA	METERS					
TIME	PH	(CONDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVITY	1	TURBIDITY	
								+-		
						<u> </u>		-		
			MON	NITORING F	READINGS					
HANBY SCREENING										
TIME	PID READING (ppm)			EL (%)	(standard/ppm)					
								+-		
	<u> </u>		<u> </u>					<u> </u>		
BG=Background;	BZ=Breath	ing Zone;	BH=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample (u	ncor	itained)	
			✓ CHECk	K ANALYSE	S REQUESTED					
		F	BARROW L	AR			ANCHOR	AGE	IAR	
			·		-					
ANALYSES	1	(CONTAINE	RS	ANALYSES	1	CONTA	AINE	RS	
		WA	TER	SOIL			WATER		SOIL	
ТРН	1	1 liter		8 oz	VOC (8260)		3 x 40 mi		4 oz	
РСВ					SVOC (8270)		1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010	,	1 x 40 m	1	4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 mi			
					тос		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/20/93			SA	MPLE I	ID: BTR-ST	18-S04				
RADAR STATION: B	arter		WI	EATHER	R: Sunny, c	clear, breezy, cool 4	0°F			
SITE/AOC: MOGAS								MAGNETIC H	EADIN	NG: <u>125°</u>
FIXED POINT: South	discharge	MOGAS	tank o	drain.						
_SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M										
TIME SAMPLED: 18								- 0-114	1 1	t
SAMPLE DESCRIPTION										
surface material. Ero gravel pad berm.	dea guiley	Delow ui	ain pir	De at the	3 Southern e	end. 50% graver, 50	% 606	Jie. Janpied	Hostiy	graver nom
SAMPLING METHOD	: Disposa	ble scoor	 D							
QA/QC SAMPLES CO				ent Blai	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)						= ID				
☐ Ambient Conditio										
				WA	TER PARAM	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ΥΤ	URBIDITY
	-						 			
	-						 		\dashv	
	<u> </u>									
				MON	IITORING R	EADINGS		· · · · · · · · · · · · · · · · · · ·		
HANBY SCREENING										
TIME	PID READ	JING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	REQUESTED				
			BARF	ROW LAB				ANCHO	RAGE	LAB
ANALYSES	1		CON	TAINER	is	ANALYSES	1	CON	TAINE	RS
		W	/ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	m!		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1			ļ <u>.</u>		TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC; HCl to pH <2; metals: HNO3 to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/20/93</u>			SA	MPLE I	D: <u>BTR-ST</u>	18-S05				
RADAR STATION: B	arter		W	EATHER	R: <u>Sunny, c</u>	clear, breezy, cool 4	0°F			
SITE/AOC: MOGAS	Storage, S	Γ18		FE	ET FROM	FIXED POINT: 44		MAGNETIC	HEAD	ING: <u>145°</u>
FIXED POINT: From	the norther	ast corne	er supp	ort colu	ımn of the	northern MOGAS sto	orage t	ank.		· · · · · · · · · · · · · · · · · · ·
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M										
TIME SAMPLED: 18										
SAMPLE DESCRIPTION									just b	elow surface
material. Base of be				ole. Sa	mpled mos	tly gravel, with som	e orga	nics.		
SAMPLING METHOD						_				
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)	DI 1 (4)					e ID				
Ambient Conditio	n Blank (Al	3) 🗆 F	teplicat	te of So	Il Sample II)				
				WA	TER PARAI	METERS				
TIME	PH		CONDUCTIVITY			TEMPERATURE	SPE	CIFIC GRAVIT	γ τ	URBIDITY
										
	_			·			<u> </u>			
				MON	ITORING F	EADINGS				
HANBY SCREENING										
TIME PID READING (F			m)	CG/LE	EL (%)	(standard/ppm)	11110			
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BARE	ROW LA	.B			ANCHORAGE LAB		LAB
ANALYSES	/		CON	TAINER	15	ANALYSES	<u> </u>	CON	TAINE	HS
		٧	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

RADAR STATION: Barter WEATHER: Sunny, windy, cool, clear 40's°F SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 1 MAGNETIC HEAD FIXED POINT: Southern (discharge) end of middle culvert on south side of berm. SAMPLE MATRIX: Soil (S) Sediment (SD) Surface Water (SW) Groundwat SAMPLERS: RO, ML TIME SAMPLED: 18:35 DEPTH OF SAMPLE (feet): Surface 0-6" SAMPLE DESCRIPTION/COMMENTS: Sampled from discharge pipe of MOGAS storage cell containing 13. 65% cobble, 35% gravel, samples mostly gravel at base of berm. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Guipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID Ambient Condition Blank (AB) Replicate of Soil Sample ID WATER PARAMETERS	tanks	V)
FIXED POINT: Southern (discharge) end of middle culvert on south side of berm. SAMPLE MATRIX: Soil (S) Sediment (SD) Surface Water (SW) Groundwat SAMPLERS: RO, ML TIME SAMPLED: 18:35 DEPTH OF SAMPLE (feet): Surface 0-6" SAMPLE DESCRIPTION/COMMENTS: Sampled from discharge pipe of MOGAS storage cell containing 13. 65% cobble, 35% gravel, samples mostly gravel at base of berm. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID Ambient Condition Blank (AB) Replicate of Soil Sample ID	tanks	N) 10, 11, 12 ar
SAMPLE MATRIX: Soil (S) Sediment (SD) Surface Water (SW) Groundwater SAMPLERS: RO, ML TIME SAMPLED: 18:35 DEPTH OF SAMPLE (feet): Surface 0-6" SAMPLE DESCRIPTION/COMMENTS: Sampled from discharge pipe of MOGAS storage cell containing 13. 65% cobble, 35% gravel, samples mostly gravel at base of berm. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID Ambient Condition Blank (AB) Replicate of Soil Sample ID	tanks	10, 11, 12 ar
SAMPLERS: RO, ML TIME SAMPLED: 18:35 DEPTH OF SAMPLE (feet): Surface 0-6" SAMPLE DESCRIPTION/COMMENTS: Sampled from discharge pipe of MOGAS storage cell containing 13. 65% cobble, 35% gravel, samples mostly gravel at base of berm. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID Ambient Condition Blank (AB) Replicate of Soil Sample ID	tanks	10, 11, 12 ar
TIME SAMPLED: 18:35 DEPTH OF SAMPLE (feet): Surface 0-6" SAMPLE DESCRIPTION/COMMENTS: Sampled from discharge pipe of MOGAS storage cell containing 13. 65% cobble, 35% gravel, samples mostly gravel at base of berm. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID Ambient Condition Blank (AB) Replicate of Soil Sample ID		
SAMPLE DESCRIPTION/COMMENTS: Sampled from discharge pipe of MOGAS storage cell containing 13. 65% cobble, 35% gravel, samples mostly gravel at base of berm. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID Ambient Condition Blank (AB) Replicate of Soil Sample ID		
13. 65% cobble, 35% gravel, samples mostly gravel at base of berm. SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes Trip Blank (TB) Duplicate of Water Sample ID Ambient Condition Blank (AB) Replicate of Soil Sample ID		
SAMPLING METHOD: Disposable scoop QA/QC SAMPLES COLLECTED:		TURBIDITY
QA/QC SAMPLES COLLECTED:		TURBIDITY
☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID		TURBIDITY
Ambient Condition Blank (AB) Replicate of Soil Sample ID		TURBIDITY
	VITY	TURBIDITY
	VITY	TURBIDITY
TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAV		
		ŀ
MONITORING READINGS		
HANBY SCREENING		
TIME PID READING (ppm) CG/LEL (%) (standard/ppm)		
BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample	le (unc	contained)
✓ CHECK ANALYSES REQUESTED		
BARROW LAB ANCI	HORAC	GE LAB
ANALYSES / CONTAINERS ANALYSES / CO	NIATNO	NERS
WATER SOIL WATE	≘R	SOIL
TPH ✓ 1 liter 8 oz VOC (8260) 3 x 40 ml		4 oz
PCB SVOC (8270) 1 liter		8 oz
PESTICIDES TOTAL METALS 1 liter		8 oz
HVOC 8010 1 x 40 ml 4 oz DISS METALS 1 liter		
VOC-BTEX 8020 ✓ TDS 250 ml		
TSS 250 ml		
TOC 500 ml		4 oz
TCLP 2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/20/93</u>			SA	MPLE !	D: BTR-ST	18-S07					
RADAR STATION: <u>B</u>							10's°F				
SITE/AOC: MOGAS									DING:	South (true)	
FIXED POINT: South	hern (disch	arge) en	d of di	esel tan	ık cell drain	pipe at SW corner	of site.			-	
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>RO, M</u>										· · ·	
TIME SAMPLED: 15						. ,					
SAMPLE DESCRIPTI				gravell	y material f	rom discharge of be	rm drai	n pipe from di	esel ta	nk cell berm	
Sampled below wash											
SAMPLING METHOD					-1. (55)						
QA/QC SAMPLES Co Trip Blank (TB)	OLLECTED										
☐ Ambient Condition						e ID					
	אוואומות (א	<i>-</i>	Српоа	10 01 00							
				WA	TER PARA	METERS	· · · · · · · · · · · · · · · · · · ·				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	T Y	TURBIDITY	
								· · · · · · · · · · · · · · · · · · ·			
	-					<u> </u>	 				
								· · · · · · · · · · · · · · · · · · ·			
				MON	IITORING R	EADINGS					
					= -	HANBY SCREEN	IING				
TIME	PID READ	PID READING (ppm)		CG/LE	EL (%)	(standard/ppm)					
						<u> </u>					
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)	
			1	CHECK	ANALYSES	S REQUESTED					
			BAR	30W L 4	ı.B			ANCHO)BAGE	IΔR	
			·····	BARROW LAB		-					
ANALYSES	1		CON	TAINER	IS	ANALYSES	1	CON	TAINE	RS	
		٧	VATER		SOIL			WATER	:	SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml	·	4 oz	
PCB						SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40	mi		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml		***	
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/20/93			s	MPLE	ID: <u>BTR-S</u> T	18-S08-0.75				
RADAR STATION: B	arter		w	EATHER	R: Sunny, d	clear, cool, breezy 4	0's°F			
SITE/AOC: MOGAS										
FIXED POINT: From	southeast	corner s	upport	colum	of the not	hern MOGAS storag	e tank	Due south (ti	ue) of	sample S05
and tank #10.										
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO, M										
TIME SAMPLED: 19										
SAMPLE DESCRIPTI						,				
southwest eventually							gravei,	sampled clay	mosti	√ and gravei
Sample collected from SAMPLING METHOD				imple 5	US AND TANK	(# IU.				
QA/QC SAMPLES CO				ont Bla	nk (ER)		tra Vol	umas		
☐ Trip Blank (TB)	JLLEGIED									
☐ Ambient Conditio										
Ambient condition	TOTAL (T	о, 	торпоа		our our pion					
			,	WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE SI		CIFIC GRAVIT	Υ Τ	TURBIDITY
							 			
				MON	IITORING R	EADINGS				
HANBY SCREENING										
TIME	PID READ	PID READING (ppm)			EL (%)	(standard/ppm)	1			
						<u> </u>		l		
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
			BADI					ANCHO		
			BARROW LAB		<u> </u>					
ANALYSES	1		CON	NTAINERS		ANALYSES	1	CON	TAINE	RS
		v	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
[L	L			<u> </u>	1				

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO $_3$ to pH <2; Ice all samples to 4° C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/20/93</u>			SA	MPLE I	D: BTR-ST	18-S09-1.5					
RADAR STATION: B							0's∘F				
SITE/AOC: MOGAS	AR STATION: Barter WEATHER: Sunny, clear, cool, breezy 40's°F VAOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 71 MAGNETIC HEADING: 330°										
FIXED POINT: From	valve on ta	ank #10	facing	northwe	est, parallel	to north-south cent	erline o	f tank.			
SAMPLE MATRIX:	, ,		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>RO, MI</u>	_	•									
TIME SAMPLED: 19	:45		DE	PTH O	F SAMPLE	(feet): 1.5 auger					
SAMPLE DESCRIPTION											
additional auger hole			d SO9	in same	direction y	ield 39 and 0 ppm	OVM h	olespace read	ings re	espectively.	
SAMPLING METHOD											
QA/QC SAMPLES CO											
☐ Trip Blank (TB)			Ouplica	te of Wa	ater Sample	e ID					
☐ Ambient Condition	n Blank (Al	3) L F	Replica	te of Sc	il Sample II)					
	WATER PARAMETERS										
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γΙ	URBIDITY	
							1				
				MON	IITORING R	FADINGS					
			· · · · · I	WOIN	iii Ottii Va Ti	T			<u>T</u>		
TIME	PID READ	ING (nn	ım)	CG/LE	=1 (%)	HANBY SCREEN (standard/ppm)	NING				
1 11 7 1 1	1 10 HEAL	,,,,с (рр	1117	00/11	(/0)	(otandara/ppin)					
							···		_		
BG=Background; I	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)	
				CHECK	ANALVOE	S REQUESTED					
						NEGOESTED					
			BARF	ROW LA	AB			ANCHO	RAGE	LAB	
ANALYSES	1		CON	TAINER	RS	ANALYSES	1	CON	TAINE	RS	
		٧	VATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ						SVOC (8270)		1 liter		8 oz	
PESTICIDES					į	TOTAL METALS		1 liter		8 oz	
HVOC 8010											
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
			···			TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to $4^{\circ}\mathrm{C}$

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/20/93</u>			s	AMPLE	ID: <u>BTR-S</u>	Γ18-S10					
ADAR STATION: Barter WEATHER: Sunny, clear, cool, breezy 40's°F											
SITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 34 MAGNETIC HEADING: 90° FIXED POINT: From the northeast corner support column of the northern MOGAS storage tank.											
FIXED POINT: From	the northe	ast corn	er sup	port col	umn of the	northern MOGAS st	orage :	tank.			
SAMPLE MATRIX:			Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO, M				EDTILO	- CAMB! F	(fact) : 0 : dans 0 0			·· ·		
TIME SAMPLED: 1						(feet): Surface 0-6		blo 459/ grav	ol Sa	moled grave	
SAMPLE DESCRIPTI and some organic si		IEIN I SS	sample	is abou	ut i i ieet iid	om base of berni. 4	5% CUL	DDIE, 45% Grav	01. Sa	mpieu grave	
SAMPLING METHOL		ble scoo	n			***					
QA/QC SAMPLES C	`			oot Dio	ak (CD)	☐ QA/QC E	dra Mol	umac			
☐ Trip Blank (TB)	OLLEGIEL					e ID					
☐ Ambient Condition	nn Rlank (Δ		•		•						
Ambient conduct	on Diank (A		Терпоа								
	1				TER PARA		Tans	0.510.004.0	. T.	TUDDIDITY	
TIME	PH		CON	IDUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	Y	TURBIDITY	
1											
				MON	ITORING F	READINGS		.			
TIME	PID REAL	DING (pp	om)	CG/LE	EL (%)	HANBY SCREE! (standard/ppm)	NING				
		<u> </u>									
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)	
			1	CHECK	ANALYSE	S REQUESTED					
			BAR	ROW LA	 \В			ANCHO	ORAGE	LAB	
ANALYSES			CON	TAINER	ns	ANALYSES	/	CON	TAINE	RS	
		v	VATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB						SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	VOC-BTEX 8020 ✓ TDS 250 ml										
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	
								No. parts.			

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/03/93</u>			SA	MPLE I	D: BTR-ST	18-2S11-2					
RADAR STATION: <u>B</u>										·	
SITE/AOC: MOGAS	Storage, S	T18		FEET	FROM FIXE	D POINT: 40		MAGNETIC H	EADIN	G: True N	
FIXED POINT: <u>Tank</u>	10, 40 feet	from no	rthwest	corne	r and inline	with west edge.					
SAMPLE MATRIX:	Soil (S)	□ s	edimer	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>JB</u>											
TIME SAMPLED: 14	F:30		DE	PTH O	F SAMPLE	(feet): 1.5 to 2.0					
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>T</u> y	pical c	ravel p	ad material	- mixed small pebbl	e grave	l and poorly s	orted s	and. Strong	
diesel smell.	· · · · · · · · · · · · · · · · · · ·										
SAMPLING METHOD	: <u>Disposa</u>	ble scoop	and a	auger							
QA/QC SAMPLES CO					• •						
						ID					
Ambient Conditio	n Blank (A	B) 🗌 R	eplicat	e of Sc	il Sample II)					
				WA	TER PARA	METERS					
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ 1	URBIDITY	
	MONITORING READINGS										
	MONITORING READINGS HANBY SCREENING										
TIME	PID READ	DING (ppr	m)	CG/LE	EL (%)	(standard/ppm)	MING				
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)	
			1 (CHECK	ANALYSES	S REQUESTED					
		<u> </u>				The Gold Test		ANGUI		LAD	
			DARH	IOW LA				ANCHO	JHAGE	LAB	
ANALYSES	1		CON	TAINER	IS .	ANALYSES	1	CON	TAINE	RS	
		w	ATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
PCB						SVOC (8270)	1	1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010 1 x 40 ml 4 oz DISS METALS 1 liter											
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
	TCLP 2 liters 2 x 8 oz							2 x 8 oz			
		,									

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/03/93</u>			s	AMPLE	ID: BTR-S	Γ18-2S12-2					
RADAR STATION: Barter WEATHER: Cold, windy, 40°F											
SITE/AOC: MOGAS	OGAS Storage, ST18 FEET FROM FIXED POINT: 40 MAGNETIC HEADING: True N										
FIXED POINT: Tank	13, 40 fee	t from no	orthwes	st corne	r and inline	with west edge.					
SAMPLE MATRIX:	Soil (S)		Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: JB											
TIME SAMPLED: 14											
SAMPLE DESCRIPTION	ON/COMM	IENTS: 1	Typical	gravel	pad materia	ıl - mixed small pebl	ole grav	el and poorly	sorted	d sand. Fair	
diesel smell.											
SAMPLING METHOD	***************************************										
QA/QC SAMPLES CO	DLLECTED				• •						
☐ Trip Blank (TB)						9 ID					
☐ Ambient Conditio	n Blank (A	B) F	Replica	te of So	oil Sample I	D					
				WA	TER PARA	METERS					
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	ry .	TURBIDITY	
							1				
	1					1					
				MON	IITORING P	READINGS		· · · · · · · · · · · · · · · · · · ·			
						HANBY SCREET	NING				
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)					
BG=Background: I	BZ=Breath	ina Zone	 • BH=	Boreho	le: NR=No	Readings; HS=Hea	dspac	e: S=Sample	(unco	ntained)	
] Danie, i		9							(,	
	<u> </u>	· · ·	7	CHECK	ANALYSE	S REQUESTED					
·			BARF	ROW LA	\B			ANCHO	PRAGE	LAB	
ANALYSES	1		CON	TAINER	ıs	ANALYSES	1	CON	TAINE	RS	
		W	/ATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ						SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	010 1 x 40 ml 4 oz DISS METALS 1 liter										
VOC-BTEX 8020	✓ TDS 250 ml										
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/20/93</u>			SA	MPLE	ID: BTR-ST	18-SD01												
RADAR STATION: <u>B</u>	ATION: Barter WEATHER: Sunny, clear, breezy, cool 42°F																	
SITE/AOC: MOGAS	Storage, ST18 FEET FROM FIXED POINT: 51 MAGNETIC HEADING: 150° the southwest corner of the southern tank support column diesel tank.																	
FIXED POINT: From	the southw	vest corn	er of the	he sout	hern tank si	upport column diese	i tank.											
SAMPLE MATRIX: [☐ Soil (S)	■ S	edime	nt (SD)		Surface Water (SW)		Groundwater (GW)									
SAMPLERS: <u>RO, M</u>																		
TIME SAMPLED: 15																		
SAMPLE DESCRIPTION							gradien	t samples from I	each	ate pathway.								
Sample media is gra				little sa	ınd, little silt	·												
SAMPLING METHOD																		
QA/QC SAMPLES C	OLLECTED																	
☐ Trip Blank (TB)	m Diamir (Al) ID												
☐ Ambient Condition	on Blank (Al	В) 🗆 Р	teplica	te of Sc	Sample II	<u> </u>												
				WA	TER PARA	METERS												
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVITY	· 1	URBIDITY								
							 		+									
	+																	
				MON	IITORING R	EADINGS												
						HANBY SCREEN	JING		T									
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)	MING	·										
		· · · · · · · · · · · · · · · · · · ·							╁									
		•																
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample (u	ıncor	ntained)								
			1	CHECK	ANALYSES	S REQUESTED												
								ANCHOF	A C E									
			DANI	ROW LA				ANCHOR	IAGE	LAD								
ANALYSES	1		CON	TAINER	RS	ANALYSES	1	CONT	AINE	RS								
		V	VATER		SOIL			WATER		SOIL								
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz								
PCB						SVOC (8270)	>	1 liter		8 oz								
PESTICIDES						TOTAL METALS		1 liter		8 oz								
HVOC 8010	1 x 40 ml 4 oz DISS METALS 1 liter																	
VOC-BTEX 8020	0 ✓ TDS 250 ml																	
						TSS		250 ml										
	TOC ✓ 500 ml 4 oz																	
						TCLP		2 liters		2 x 8 oz								
									TOLP Z INTERS Z X 6 UZ									

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/20/93</u>			SA	MPLE !	D: <u>BTR-S1</u>	Γ18-SW01					
RADAR STATION: B											
ITE/AOC: MOGAS Storage, ST18 FEET FROM FIXED POINT: 65 MAGNETIC HEADING: 175° IXED POINT: From the southwest corner of the southern tank support column of diesel tank.											
								nk.			
SAMPLE MATRIX:		□ s	Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>RO, M</u> TIME SAMPLED: 15			DE		E SAMDI E	(feet): Surface 6-8"					
SAMPLE DESCRIPTION						• /		and is last do	wngrad	dient sample	
Apparent visible shee						nt stream now norm	au arce	taria ib iast ac	· · · · · · · · · · · · · · · · · · ·	alerit dampi	
SAMPLING METHOD			ailei 3	ampiing	miliatea.						
QA/QC SAMPLES C				ont Pla	ok (ED)		tra Vol	umae			
	OLLEGIED					e ID					
☐ Trip Blank (TB)☐ Ambient Condition	n Blank (Al										
Ambient Condition	III DIAIIK (AI	D) L. F	replica	16 01 30	Jii Sample i						
	<u> </u>			WA	TER PARA	METERS					
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry T	TURBIDITY	
15:30	7.7		1200			10°C				<0.0001	
				MON	IITORING F	READINGS					
MONITORING READINGS HANBY SCREENING											
TIME	PID READ	ING (pp	m)	CG/LE	EL (%)	(standard/ppm)					
						D		. C. Compie	(···> 0.0	ntoined)	
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreno	ie; NR=No	Readings; HS=Hea	auspac	e; 5=5ample	(uncor	itali leu)	
			1	CHECK	ANALYSE	S REQUESTED		<u> </u>			
			BARF	ROW LA	\B]		ANCHO	DRAGE	LAB	
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	ITAINE	RS	
		V	VATER	-	SOIL			WATER		SOIL	
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
РСВ						SVOC (8270)	1	1 liter	,	8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS	1	250 ml			
						TSS	1	250 ml			
						тос	1	500 ml	,	4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

SAMPLE COLLECTION LOGS FOR THE OLD DUMP SITE (LF19) (Formerly identified as AOC10)

DATE: <u>8-21-93</u>			SA	MPLE I	D: BTR-LF	<u>19-S01-1.5</u>				
RADAR STATION: _E	Barter		WE	EATHER	R: <u>Sunny,</u>	warm 55°F				
	R STATION: Barter WEATHER: Sunny, warm 55°F AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: MAGNETIC HEADING:									
FIXED POINT:										
SAMPLE MATRIX:		☐ S	edimer	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG</u> TIME SAMPLED: 14			DE	DTU O	F SAMPLE	(foot): 1 E				
SAMPLE DESCRIPTI							n bne	ravole (fill mat	arial)	
ONIVIT EL DECONTIT TI	014,00141141	LIVIO. <u>C</u>	diffpic	locatio	ii iicai cent	er or larianis. Oarias	ana q	iaveio (illi illiae	511ui).	
SAMPLING METHOD): <u>Hand au</u>	iger								
QA/QC SAMPLES C	OLLECTED	: 🗆 E	quipm	ent Blar	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)			uplicat	te of Wa	ater Sample	ID				
☐ Ambient Condition	on Blank (Al	B) 🗆 R	Replicat	e of Sc	il Sample II	D				
				WA	TER PARA	METERS				
TIME .	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	URBIDITY
				MON	IITORING R	EADINGS				
						HANBY SCREEN	NING			
TIME	PID READ	ING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
										,
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	REQUESTED				
			BARF	ROW LA	\B			ANCHO	RAGE	LAB
ANALYSES			CON	TAINER	RS	ANALYSES	1	CON	TAINE	RS
7117121020		١,	/ATER		SOIL	7.77.6.10.60		WATER		SOIL
TPH	1	1 liter	AILI		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB		I III.			0 02	SVOC (8270)				
PESTICIDES	/					<u> </u>	1	1 liter		8 oz
								8 oz		
						1 liter	-			
VOC-BTEX 8020				l		TDS		250 ml		
						TSS		250 ml		
						ТОС		500 ml		4 oz
TCLP							2 x 8 oz			

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

RADAR STATION: B	SAMPLE ID: BTR-LF19-S02-2 arter WEATHER: Sunny, warm, calm, 50°F									
SITE/AOC: Old Dum	p Site, LF1	Site, LF19 FEET FROM FIXED POINT: MAGNETIC HEADING:								
FIXED POINT:										
SAMPLE MATRIX:				nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS:										
TIME SAMPLED: 15										
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>S</u>	ample	locatio	n at north e	end of tributary, sub	surface	1 to 2 feet.		
SAMPLING METHOD	. Dienoea	nie spoor	n to ob	tain de	nth					
QA/QC SAMPLES CO							tra Voli	ımas		
						e ID				
☐ Trip Blank (TB) ☐ Ambient Conditio										
Ambient Conditio	II DIAIR (A	<i>)</i> L N	replicati							
	1			WA'	TER PARAI	METERS T			1	
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	URBIDITY
	-				· -		1			
							<u> </u>			
	MONITORING READINGS									
	HANBY SCREENING									
TIME	PID READ	ING (ppi	m)	CG/LE	L (%)	(standard/ppm)				
BG=Background:	BZ=Breath	ina Zone	: BH=I	Boreho	le: NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
Ba-Background,	5.000.0	9								
			7 (CHECK	ANALYSES	REQUESTED				
,			BARR	OW LA	.B			ANCHO	DRAGE	LAB
ANALYSES	1		CONT	rainer	S	ANALYSES	/	CON	TAINE	RS
		W	/ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010						DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
	ICLP ZINEIS ZAGOZ									

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8-21-93</u>			SAI	MPLE I	D: BTR-LF	19-S03					
RADAR STATION: E	Barter		WE	ATHEF	R: Sunny	and warm, calm, 50	°F				
	I: Barter WEATHER: Sunny and warm, calm, 50°F Dump Site, LF19 FEET FROM FIXED POINT: MAGNETIC HEADING:										
FIXED POINT:											
SAMPLE MATRIX: SAMPLERS: JM			edimen	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
TIME SAMPLED: 1			DEI	PTH O	E SAMPLE	(feet): Interface sur	face				
SAMPLE DESCRIPT								About 10 feet	above	heach We	
sorted sands (fill ma						or landing door		TOOK TO TOOK	<u> </u>	<u> </u>	
SAMPLING METHOL											
QA/QC SAMPLES C			auipme	ent Blar	nk (EB)	□ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)						D					
☐ Ambient Condition	on Blank (A	B) 🗆 R	leplicate	e of So	il Sample II	D			****		
		·			TER PARA						
TIME	РН	Ĭ	CONE	DUCTIV		TEMPERATURE	CDC	CIFIC GRAVIT	_ν [,	TURBIDITY	
INIC	1 50		CONL	JUCITY		TEMPERATURE	SFE	CIFIC GRAVII	1 1	ווטומאט	
				MON	ITORING F	EADINGS	······································				
	MONITORING READINGS HANBY SCREENING										
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)	·ii····				
					77. 7						
			L								
BG=Background;	BZ=Breath	ing Zone	; BH=E	3oreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ıtained)	
			√ C	CHECK	ANALYSES	S REQUESTED					
			BARR	OW LA	.B			ANCHO	DRAGE	LAB	
411110000			CONT	AINER	<u> </u>						
ANALYSES			CONT	AINER	3	ANALYSES	<i></i>	CON	ITAINE	no I	
		W	/ATER		SOIL			WATER	i i	SOIL	
TPH	<u> </u>	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB	/					SVOC (8270)		1 liter	1	8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010											
VOC-BTEX 8020	/					TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
TCLP 2 liters 2 x 8 oz											

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

MARTHER SURINW WARTHER SURINW WARTHER SURINW WARTHER SURINW WARTHER SURINW WARTHER SURINW STEP SURINW STEP SURINW STEP SURINW STEP SURINW SURINW STEP SURINW SURINW STEP SURINW	DATE: <u>8-21-93</u>			SA	MPLE!	D: BTR-LF	19-S04-2.5				
SAMPLER SOII SoiI	RADAR STATION: B										
SAMPLE MATRIX: Soil (S) Sediment (SD) Surface Water (SW) Groundwater (GW)	SITE/AOC: Old Dum										
SAMPLERS: PG_JM SAMPLED: 13:45 DEPTH OF SAMPLE (feet): 2 to 2.5	FIXED POINT: Confl	Confluence with contaminated ditch.									
DEPTH OF SAMPLED: 13:45 DEPTH OF SAMPLE (feet): 2 to 2.5	SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLE DESCRIPTION/COMMENTS: Minor silts, sands, gravels, moist, light grav. Sample location roughly 80' SE of confluence with contaminated ditch and 150' SW of bifurcation in tributary. Sample collected adjacent to tributary. Paper sold.	SAMPLERS: PG										
with contaminated ditch and 150' SW of bifurcation in tributary. Sample collected adjacent to tributary/Replicate of S06. SAMPLING METHOD: Spade and scoop DAYOC SAMPLES COLLECTED:											
SAMPLING METHOD: Spade and scoop											
CAYOC SAMPLES COLLECTED:					tion in t	ributary. S	ample collected adja	acent to	tributary/Rep	licate (of S06.
Trip Blank (TB)											
Ambient Condition Blank (AB) Replicate of Soil Sample ID BTR-LEF19-S06		OLLECTED						tra Vol	umes		
TIME	, , , ,			•		•					
TIME	Ambient Conditio	n Blank (Al	B) 🔳 F	Replica	te of So	ii Sampie II) <u>BIH-LF19-S06</u>				
					WA	TER PARA	METERS				
Note	TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ 7	URBIDITY
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) Language (standard/ppm) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>											
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) Language								-			
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) Language											
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) Language											
TIME PID READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm) HANBY SCREENING (standard/ppm) Language		MONITODING PEADINGS									
TIME PID READING (ppm) CG/LE (%) (standard/ppm) Image: control of the properties o											
BG=Background; BZ=Breathing Zone; BH=Borehole; NR=No Readings; HS=Headspace; S=Sample (unclaimed)	TIME	PID REAL	NG (pr	nm)	CG/LF	=1 (%)		NING			
BAR BAR SOIL SOIC S	THVIC	110 11211	упто (рр	211.7							
BAR BAR SOIL SOIC S											
BAR BAR SOIL SOIC S											
BARROW LAB ANALYSES ANCHORAGE LAB ANALYSES ANCHORAGE LAB CONTAINERS ANALYSES ANCHORAGE LAB TPH VMATER SOIL TPH ✓ 1 liter SOIL PCB ✓ 1 liter 8 oz PESTICIDES ✓ 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml TSS 250 ml TDS TOC ✓ 500 ml	BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
BARROW LAB ANALYSES ANCHORAGE LAB ANALYSES ANCHORAGE LAB CONTAINERS ANALYSES ANCHORAGE LAB TPH VMATER SOIL TPH ✓ 1 liter SOIL PCB ✓ 1 liter 8 oz PESTICIDES ✓ 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml TSS 250 ml TDS TOC ✓ 500 ml					CHECK	ANALVSE	S REQUESTED				
ANALYSES							I		4210116		- 1 AD
WATER SOIL WATER SOIL SOIL WATER SOIL				BAR	ROW LA	л В			ANCHO	HAGE	LAB
TPH ✓ 1 liter 8 oz VOC (8260) ✓ 3 x 40 ml 4 oz PCB ✓ ✓ 1 liter 8 oz PESTICIDES ✓ 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml TSS 250 ml TSS 1 TOC ✓ 500 ml 4 oz	ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
TPH ✓ 1 liter 8 oz VOC (8260) ✓ 3 x 40 ml 4 oz PCB ✓ SVOC (8270) ✓ 1 liter 8 oz PESTICIDES ✓ 1 x 40 ml 4 oz DISS METALS 1 liter 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ 1 x 40 ml TSS 250 ml TSS TOC ✓ 500 ml 4 oz			V	VATER		SOIL			WATER		SOIL
PCB J SVOC (8270) J 1 liter 8 oz PESTICIDES J 1 x 40 ml 4 oz DISS METALS 1 liter 8 oz HVOC 8010 J 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 J TDS 250 ml TSS 250 ml TOC J 500 ml 4 oz	TPH	1	<u>. </u>		-		VOC (8260)	1	3 x 40 ml		4 oz
PESTICIDES ✓ 1 ster 8 oz HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC ✓ 500 ml 4 oz							SVOC (8270)	1	1 liter		8 oz
HVOC 8010 ✓ 1 x 40 ml 4 oz DISS METALS 1 liter VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC ✓ 500 ml 4 oz								1	1 liter		8 oz
VOC-BTEX 8020 ✓ TDS 250 ml TSS 250 ml TOC ✓ 500 ml 4 oz							DISS METALS		1 liter		
TOC ✓ 500 ml 4 oz							TDS		250 ml		
					. h		TSS		250 ml		
TCLP 2 liters 2 x 8 oz							тос	1	500 ml		4 oz
							TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8-21-93</u>			SA	MPLE	ID: BTR-LF	19-S05-2				
SITE/AOC: Old Dum	Barter WEATHER: Sunny, warm, 55°F np Site, LF19 FEET FROM FIXED POINT: 135 MAGNETIC HEADING: East									
FIXED POINT: 135	due east f	rom con	tamina	ted ditc	h, 45 feet s	outh of tributary, no	rth of n	nain road.		
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG	, JM	•				******				W
TIME SAMPLED: 14	1:30		DE	EPTH O	F SAMPLE	(feet): 1.5 to 2.0				
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>C</u>	ollect a	<u>ıt similaı</u>	depth as S	O4 and SO6, if visib	le conta	amination, relo	cate S	E. Silt to cla
loam, high organic c				at 2' (au	iger refusal)					
SAMPLING METHOD										
QA/QC SAMPLES CO										
☐ Trip Blank (TB)						e ID				
Ambient Conditio	n Blank (A	B) 🗌 F	Replica	te of Sc	il Sample I	D				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY
									\neg	
	<u> </u>									
										<u> </u>
	MONITORING READINGS									
	HANBY SCREENING									
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
							•			
DO D 1	07 0							L	<u>. </u>	
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	λB			ANCHO	RAGE	LAB
ANALYSES	/		CON	TAINER	.S	ANALYSES	1	CON	TAINE	HS
		W	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	0 1 x 40 ml 4 oz DISS METALS					DISS METALS		1 liter		
VOC-BTEX 8020	< 8020 ✓					TDS 250 ml				
						TSS		250 ml		
						тос		500 ml		4 oz
	TCLP 2 liters 2 x 8 d						2 x 8 oz			

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>8-21-93</u>			SAMI	PLE IC	: BTR-LF	19-S06-2.5				
RADAR STATION: B	SAMPLE ID: BTR-LF19-S06-2.5 Barter WEATHER: Sunny, warm, 55°F, slight breeze									
SITE/AOC: Old Dum	p Site, LF19 FEET FROM FIXED POINT: 30 MAGNETIC HEADING: ~90°									
FIXED POINT: Confl	uence with	contamin	ated dito	ch						
SAMPLE MATRIX:	Soil (S)	☐ Se	ediment	(SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG										
TIME SAMPLED: 13	3:45		DEP	TH OF	SAMPLE	(feet): 2 to 2.5				
SAMPLE DESCRIPTI	ON/COMM	ENTS: Re	eplicate	of BTF	R-LF19-S04	1				
SAMPLING METHOD). Hand au	ner								
QA/QC SAMPLES C				+ Plan	k (CD)		tra Vol	ımee		
	OFFECIED					ID	lia voi	unies		
☐ Trip Blank (TB)☐ Ambient Conditio	n Blank (Δl				•					
Ambient Condition	T Blank (A) = No	Spiloato							
				WAI	ER PARA	METERS	1			
TIME	PH		CONDL	JCTIVI	TY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 1	URBIDITY
·										
	-									
		MONITORING READINGS								
	MONITORING READINGS HANBY SCREENING									
TIME	PID READ	ING (ppn	n) C	CG/LEI	∟ (%)	(standard/ppm)				
	<u> </u>		i						l	
BG=Background;	BZ=Breath	ing Zone;	BH=Bc	orehole	e; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			✓ CH	HECK A	ANALYSES	REQUESTED				
			BARRO	WLAF	3			ANCHO	RAGE	LAB
	'							CON	T A I A I C	DC
ANALYSES	/		CONTA	INERS	· · · · · · · · · · · · · · · · · · ·	ANALYSES	1	CON	TAINE	no
		W	ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ	1					SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010	HVOC 8010 ✓ 1 x 40 ml 4 o					DISS METALS		1 liter		
VOC-BTEX 8020	VOC-BTEX 8020 ✓					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
	TCLP 2 liters 2 x 8 o							2 x 8 oz		
	TOLF ZINGIS ZASSE									

Preservation:

HVOC and VOC: HCI to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9-2-93</u>			SA	MPLE I	D: <u>BTR-LF</u>	19-2S06-1.5						
RADAR STATION: Barter WEATHER: Foggy, misty, 40°F												
SITE/AOC: Old Dum	p Site, LF1	9	FEE	ET FROM	A FIXED PO	DINT: <u>40</u>	MAGNE	TIC HEADING	3: <u>Nor</u>	th		
FIXED POINT: 40 f	eet north o	f main ro	oad, 50) feet so	utheast and	d upgradient of LF1	9-S05.					
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: PG,	JM, DP											
TIME SAMPLED: 09	9:45		DE	EPTH O	SAMPLE	(feet): 1.5	····					
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>[</u>	Dark br	own, ne	ar saturatio	n, abundant roots, s	some ir	ntermittent gra	vels.			
CAMPLING METHOD). Hond ou	~~~										
SAMPLING METHOD				ant Plan	N. (ED)		tro Vol	ımaa	 			
QA/QC SAMPLES CO	JLLEGIED											
☐ Trip Blank (TB) ☐ Ambient Conditio	n Blank (Al					ID						
Ambient Conditio	II Dialik (Al	D) L. [терпса									
				WA.	TER PARAM	METERS	T					
TIME	PH		CON	DUCTIV	TTY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	URBIDITY		
	1						1					
							 		\dashv			
				MON	ITORING R	EADINGS						
						HANBY SCREEN	IING					
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)						
									\dashv			
									1			
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)		
			1	CHECK	ANALYSES	REQUESTED						
			BAR	ROW LA	.B			ANCHO	RAGE	LAB		
	_			TAINER					TAINE			
ANALYSES			CON	IAINER	S	ANALYSES	1	CON	IAINE	no I		
		٧	VATER		SOIL			WATER		SOIL		
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 mi		4 oz		
PCB						SVOC (8270)		1 liter		8 oz		
PESTICIDES						TOTAL METALS		1 liter		8 oz		
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	1	1				TDS		250 ml				
				•		TSS		250 ml				
						тос		500 ml		4 oz		
1		 	<u> </u>							.		
				TCLP 2 liters 2 x 8 oz								

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO3 to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-2-93</u>			SA	MPLE	id: <u>BTR-Li</u>	19-2807				
RADAR STATION: Barter WEATHER: Misty, foggy, 40°F SITE/AOC: Old Dump Site, LF19 FEET FROM FIXED POINT: MAGNETIC HEADING:										
SITE/AOC: Old Dum	p Site, LF1	9	FEE	T FROM	/I FIXED PO	DINT:	_ MAG	GNETIC HEADI	NG:	
FIXED POINT: Sou	th side of r	main roac	betwe	een cul	verts leadir	g from MOGAS are	ā			
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: PG,	JM, DP					······				
TIME SAMPLED: 10						(feet): 0 to 0.5				
SAMPLE DESCRIPTION						al. Collected at sout	nwest u	ipgradient boui	ndary	, south of the
two drainage culverts				MOGAS	S storage.					
SAMPLING METHOD										
QA/QC SAMPLES CO										
☐ Trip Blank (TB)						e ID				
☐ Ambient Condition	n Blank (A	B)	eplicat	te of Sc	oil Sample I	D				
				WA	TER PARA	METERS				:
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ .	TURBIDITY
TIME THE CONDUCTION TERM ENAFORE SECOND CHAVITY TO RESERVE										
									+	
										
				MON	ITORING F	READINGS		T		
						HANBY SCREET	NING			
TIME	PID READ	ING (ppi	m)	CG/LE	EL (%)	(standard/ppm)				
PC - Rookground: I	P7—Proath	ing Zong	· DU_	Porobo	lo: NID-No	Readings; HS=Hea	denac	o: S-Sample (unco	ntained)
BG=Background, i	DZ – Dream	ing Zone	, DII-	Doreilo	ie, inn-inc	Readings, 113-11e	uspac	e, o-cample (anco	manea)
			1	CHECK	ANALYSE	S REQUESTED				
			BARF	ROW LA	ιB			ANCHO	RAGI	E LAB
						1	_	CON	FAINIC	DC.
ANALYSES	- /		CON	TAINER	.5	ANALYSES		CON	AINE	
		W	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
								· · · · · · · · · · · · · · · · · · ·		
PESTICIDES				· · · · · ·		TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ı	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020 ✓ TDS 250 ml										
				•		TSS		250 ml		
										
						TOC		500 ml		4 oz
,						TCLP		2 liters		2 x 8 oz

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9-2-93</u>			SA	MPLE !	ID: BTR-LF	19-2808-1					
RADAR STATION: Barter WEATHER: Cold, cloudy, calm, 40°F											
SITE/AOC: Old Dum	ip Site, LF1	9	FE	EET FR	OM FIXED	POINT: <u>15</u>	MAGN	NETIC HEADIN	G: <u>W</u>	est ~ 270°	
FIXED POINT: Inters	ection of A	<u>irport Ro</u>	ad and	d Grave	<u>I Landfill Ac</u>	cess Road.					
SAMPLE MATRIX:	Soil (S)		3edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>DP,</u>											
TIME SAMPLED: 10					F SAMPLE						
SAMPLE DESCRIPTION	ON/COMM	ENTS: 5	<u>Sands</u> :	and gra	vel near sa	turation, high organ	ic musl	ky odor.			
										<u> </u>	
SAMPLING METHOD											
QA/QC SAMPLES CO	OLLECTED					☐ QA/QC Ex	dra Vol	umes			
☐ Trip Blank (TB)	··· Olamb (A:					e ID	4				
Ambient Conditio	n Blank (At	3) 🔳 🕝	lepiicai	te of So	il Sampie ii	D <u>BTR-LF 19-2809-</u>	1				
	- · <u> </u>			WA	TER PARA	METERS					
TIME	PH		CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY	
	+						+		1		
				MON	"TODING E	PEADINGO	<u> </u>				
			 1	MOIN	NITORING R	1		T			
TIME	DID DEAL	NAIG (or	/	00/11	T! (o/)	HANBY SCREEN	VING				
TIME	PID READ	JING (PP	/m)	CG/LE	EL (%)	(standard/ppm)		<u> </u>	\dashv		
	<u> </u>										
	l					<u> </u>					
BG=Background;	BZ=Breath	ing Zon	e: BH=	Boreho	le: NR=No	Readings; HS=Hea	adspace	e: S=Sample	(uncor	ntained)	
			*					-, ,	(***	,	
		г		CHECK	ANALYSE	S REQUESTED		T			
			BARF	ROW LA	\В]		ANCHO	RAGE	E LAB	
ANALYSES			CON	TAINER	is	ANALYSES	/	CON	TAINE	RS	
		T V	VATER		SOIL	, , , , , , ,		WATER		SOIL	
	-		VAILI			1		1			
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB		1				SVOC (8270)		1 liter		8 oz	
PESTICIDES	!				<u></u>	TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1	<u> </u>				TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	
31		1		,	1	1	•	1			

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-2-93</u>		S/	AMPLE	ID: <u>BTR-L</u> F	19-2809-1				
RADAR STATION: _E									
SITE/AOC: Old Dum						MAGI	VETIC HEADII	۷G: _^	′280°
FIXED POINT: Center									
SAMPLE MATRIX:	• •	☐ Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>DP</u>			EDTU O	C CAMPLE	(fact): 1 Fact				
TIME SAMPLED: <u>10</u> SAMPLE DESCRIPTI					(feet): 1 Foot	nic mi	isky odor. Co	llecter	d at one for
depth. Sample west						arije rrie	isky odol. Od	nected	a at one loc
deptn. Sample west SAMPLING METHOL				uump mau	•				
				nk (EB)	Π 04/0C E ₂	tra Vol	umas		
QA/QC SAMPLES C	OLLEGIED				e ID				
☐ Trip Blank (TB)☐ Ambient Condition	n Plank (Al	•		•					· · · · · · · · · · · · · · · · · · ·
Ambient Condition	on Blank (Al	b) Replica	:				1200		
	1			TER PARA	1	1		Т	
TIME	PH	COV	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 1	TURBIDITY
			MON	IITORING F	READINGS				
			I	in oranta i	HANBY SCREET	HNG			
TIME	PID READ	DING (ppm)	CG/LE	EL (%)	(standard/ppm)	NING			
BG=Background;	BZ=Breath	ning Zone; BH=	Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
					S REQUESTED				
		r	ROW LA		T		ANCHO	TRAGE	IΔR
		BAN	HOW LA				ANOTIC	TIAGE	
ANALYSES	1	CON	ITAINEF	RS	ANALYSES	1	CON	TAINE	RS
		WATER	}	SOIL			WATER		SOIL
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to $4^{\circ}C$

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8-21-93</u>	47.		SAM	APLE II	D: BTR-LF	19-SD01					
RADAR STATION: Barter WEATHER: Sunny, warm, 55°F											
SITE/AOC: Old Dum	np Site, LF1	9	FEE	T FRO	M FIXED F	POINT:		AGNETIC HEA	DING:		
FIXED POINT: 30 f	feet due eas	st of main	1 SD08 t	ributar	γ, up from	tributary confluence)				
SAMPLE MATRIX:		■ Se	ediment	(SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: PG			חבת								
TIME SAMPLED: 1						(feet):		19-b (CD0)	-1		
SAMPLE DESCRIPTI	IOIN/GOIVIIVI	EN 15. <u>III</u>	Second	Jary ui	IDUITATY eas	t of confluence with	Orama	ge aitch (Suut	3).		
SAMPLING METHOD	D: <u>Disposa</u>	ble spoor	<u> </u>								
QA/QC SAMPLES C	OLLECTED	: 🗆 E	quipmer	nt Blan	ık (EB)	☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)			uplicate	of Wa	ater Sample	e ID					
Ambient Condition	on Blank (A	B) 🗌 Re	eplicate	of Soi	il Sample II)					
				WAT	TER PARA	METERS					
TIME	PH		CONDU	UCTIV	ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ Τ	TURBIDITY	
				MON	ITORING R	EADINGS					
				-		HANBY SCREEN	VING				
TIME	PID READ	DING (ppr	n) (CG/LE	L (%)	(standard/ppm)				·····	
BG=Background;	BZ=Breath	ing Zone;	; BH=B	orehol	e; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)	
			✓ Cł	HECK	ANALYSES	S REQUESTED					
			BARRO	DW LA	В			ANCHO	RAGE	LAB	
ANALYSES			CONTA	AINERS	S	ANALYSES	1	CON	TAINE	RS	
		w.	ATER		SOIL			WATER		SOIL	
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ	1					SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40 r	mi		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1					TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	
								-			

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>9-2-93</u>			SA	MPLE I	D: <u>BTR-LF</u>	19-2SD02				
RADAR STATION: <u>B</u>										
SITE/AOC: Old Dum	p Site, LF1	9	_ FEE	T FROM	M FIXED PO	OINT: <u>80</u>	_ MA	GNETIC HEAD	ING: _	North
FIXED POINT: <u>150</u>	feet northe	east of L	F19-SD	001, 80	feet north o	of main road is whe	re sam	ole was collec	ted.	
SAMPLE MATRIX:			Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>PG</u>										
TIME SAMPLED: 10						(feet): 0 to 0.5	0000		حاجها:اح	Olka aanda
SAMPLE DESCRIPTION			pstrea	m plume	e definition	of culvert, tributary to	5008	contaminated	alten.	Sills, Sarius
and gravel, dark cold		anics.								
SAMPLING METHOD					. (55)	U 04/00 F	\/al			
QA/QC SAMPLES CO	OLLECTED					☐ QA/QC Ex				
☐ Trip Blank (TB)☐ Ambient Conditio	n Plank (Al		-			e ID				
Ambient Conditio	III DIAIIK (AL	D) L. [replical		-					
				WA	TER PARA	METERS	T			
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	URBIDITY
	_						-		+-	
				MON	ITORING F	READINGS				
						HANBY SCREEN	NING			
TIME	PID READ	ING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone	 e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			./	CHECK	ANALYSE:	S REQUESTED				
				ROW LA		I I I I I I I I I I I I I I I I I I I		ANCHO)RAGE	
			DANI	1000		-				
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		v	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1			<u> </u>		TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 8-21-93		S/	AMPLE	ID: BTR-LF	-19-SW01				
RADAR STATION: B	STATION: Barter WEATHER: Foggy, misty, 40°F								
SITE/AOC: Old Dum						M/	AGNETIC HEAD)ING:	90°~East
FIXED POINT: 30 f	eet upstrea	ım from conflue	ence of	SD08 drains	age channel.				
SAMPLE MATRIX:	☐ Soil (S)	☐ Sedime	∍nt (SD)		Surface Water (SW)		Groundwater (GW)	
SAMPLERS: <u>PG</u>	, JM								
TIME SAMPLED: 13	3:05	DI	EPTH O						***************************************
SAMPLE DESCRIPTION						outary e	east of converge	nce v	with drainage
ditch (SD08). Fine g		and gravels, p	etroleur	n sheen ob	served.				· · · · · · · · · · · · · · · · · · ·
SAMPLING METHOD									
QA/QC SAMPLES CO	OLLECTED								
☐ Trip Blank (TB)	- Pionk (Al	Duplica	ite of vv	ater Sample	e ID				
☐ Ambient Conditio	n biank (Ai	B) 🗆 neplica	Te or Sc	Sample ii	υ				
			WA	TER PARA	METERS				
TIME	PH	CON	IDUCTIV	VITY	TEMPERATURE	SPE	CIFIC GRAVITY		TURBIDITY
. 13:10	6.8	1,980	0		4°C				
						†		\top	
			MON	NITORING F	READINGS				
					HANBY SCREEN	NING			
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)				
	<u> </u>								
RG-Background	B7-Breath	ing Zone: BH=	-Boreho	NR-NO	Readings; HS=Hea		c. S-Sample (12001	
DG-Dackground,	DZ-Dica	ing zone, bri-	-Doienc	ne, mrt=rto	neadings, 110-11cc	Juspac	s, 3—3ample (c	יטטו וג	llaineu _j
		√	CHECK	(ANALYSES	S REQUESTED				
		BAR	ROW LA	AB .			ANCHO	RAGE	: LAB
ANALYSES	1	CON	TAINEF	 RS	ANALYSES	/	CONT	AINE	 :RS
		WATER		SOIL		-	WATER		SOIL
ТРН	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ	/				SVOC (8270)	1	1 liter		8 oz
PESTICIDES	/	1			TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS	 	1 liter		
		X 40		4 02		1	1		
VOC-BTEX 8020	/			<u> </u>	TDS	1	250 ml		
				<u> </u>	TSS	1	250 ml		
				<u> </u>	TOC	1	500 ml		4 oz
		TCLP		2 liters		2 x 8 oz			

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

SAMPLE COLLECTION LOGS FOR THE BLADDER DIESEL SPILL (SS20) (Formerly identified as AOC14)

DATE: 8/21/93 SAMPLE ID: BTR-SS20-S01-0.75												
RADAR STATION: Barter WEATHER: Foggy, cool, breezy, misty 40's°F SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 91 MAGNETIC HEADING: 225°												
						!	MAGNETIC HE	ADIN	G: <u>225°</u>			
FIXED POINT: South SAMPLE MATRIX:					Gome (see map). Surface Water (SW)		Crownshar	·O140				
SAMPLERS: <u>RT, RC</u>		☐ 2eam	ieni (SD)	U	Surface water (Sw)	Ш	Groundwater	(GW)				
TIME SAMPLED: 19			DEPTH C	F SAMPLE	(feet): 6"-8" (Water	at 1 fo	ot - loss of ho	e inte	arity)			
SAMPLE DESCRIPTION												
SAMPLING METHOD	: Shovel a	away surface r	ock sam	ple with dis	posable scoop.							
QA/QC SAMPLES CO	DLLECTED											
☐ Trip Blank (TB)					e ID							
Ambient Condition	n Blank (A	B) L Replic	ate of So	oil Sample I	D							
	WATER PARAMETERS											
TIME	PH	СО	NDUCTI	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ -	TURBIDITY			
						1						
	1					 		\dashv				
			MON	NITORING F	READINGS		_					
					HANBY SCREEN	NING						
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)							
								\perp				
BG=Background; {	BZ=Breath	ning Zone; BH	=Boreho	ole; NR=No	Readings; HS=Hea	dspac	e; S=Sample (uncoi	ntained)			
				ANALVEE	S REQUESTED							
		[3 REGUESTED							
		BAH	RROW LA	AB	1		ANCHO	RAGE	: LAB			
ANALYSES	/	CO	NTAINEF	RS	ANALYSES	1	CON	TAINE	RS			
		WATE	R	SOIL			WATER		SOIL			
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz			
PCB					SVOC (8270)		1 liter		8 oz			
PESTICIDES					TOTAL METALS		1 liter		8 oz			
HVOC 8010		1 x 40 mi		4 oz	DISS METALS		1 liter					
VOC-BTEX 8020	1				TDS		250 ml					
					TSS		250 ml					
					тос		500 ml		4 oz			
					TCLP		2 liters		2 x 8 oz			

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/21/93 SAMPLE ID: BTR-SS20-S02-0.75										
RADAR STATION: Barter WEATHER: Foggy, wet, cool, calm ~40°F										
SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 93 MAGNETIC HEADING: 265°										
FIXED POINT: North	west corne	er of module	train B (se	e map).						
SAMPLE MATRIX:	Soil (S)	☐ Sedi	nent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>RT, RC</u>										
TIME SAMPLED: 18					(feet): 6"-8" (Lack of					
SAMPLE DESCRIPTI						avel, sa	and, little rock.			
SAMPLING METHOD										
QA/QC SAMPLES CO	OLLECTED	•								
☐ Trip Blank (TB)☐ Ambient Conditio	n Blonk (A	•		•	e ID	- <u>-</u> -				
Ambient Conditio	III DIAIIK (A	p) 🗆 vehi	Cale Of St	on Sample i						
			WA	TER PARA	METERS	Т				
TIME	PH	C	NDUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	TURBIDITY	
			MON	NITORING R	EADINGS					
					HANBY SCREET	NING				
TIME	PID REAL	DING (ppm)	CG/LI	EL (%)	(standard/ppm)					
									:	
BG=Background:	BZ=Breath	ing Zone; Bl	H=Boreho	ole; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)	
	<u> </u>	I			S REQUESTED					
		BA	RROW LA	AB			ANCHO	HAGE	: LAB	
ANALYSES	1	C	NTAINEF	RS	ANALYSES	1	CON	TAINE	RS	
		WATI	R	SOIL			WATER		SOIL	
ТРН	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
РСВ					SVOC (8270)	1	1 liter		8 oz	
PESTICIDES					TOTAL METALS	1	1 liter		8 oz	
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 ml			
					тос	1	500 mi		4 oz	
	TCLP 2 liters 2 x 8 oz									

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 8/21/93			SA	MPLE	ID: BTR-SS	S20-S03-1				
RADAR STATION: Barter WEATHER: Foggy, moist, cool, breezy 40's°F										
SITE/AOC: Bladder	Diesel Spill	, SS20	F	EET F	ROM FIXED	POINT: 35	\	MAGNETIC HE	ADINO	6: <u>180°</u>
FIXED POINT: Utility	pole on st	noulder o	of road	to weat	ther station	radar module.				
SAMPLE MATRIX:	Soil (S)		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RT, RC)									
TIME SAMPLED: 19									***	
SAMPLE DESCRIPTION				o conta	minant, tune	dra, or excess water	/ hole	collapse. Visi	ble she	en at 1 foot
50% gravel, 50% rock										
SAMPLING METHOD										
QA/QC SAMPLES CO										
) ID				
☐ Ambient Conditio	n Blank (A	B)	Replica	te of Sc	oil Sample II	D				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry 1	URBIDITY
					····		+			
							-			
				MON	IITORING R	EADINGS				
						HANBY SCREET	NING			
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
				_					_1_	
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	REQUESTED				
			BARF	ROW LA	\B			ANCHO	DRAGE	LAB
ANALYSES	1		CON	TAINER	is	ANALYSES	1	COV	ITAINE	RS
7,17,12,1020	-	,,	/ATCD		2011	ANALIOLO				
			VATER		SOIL		-	WATER	i i	SOIL
TPH	/	1 liter			8 oz	VOC (8260)	1	3 x 40 mi		4 oz
PCB						SVOC (8270)	J	1 liter		8 oz
PESTICIDES				T		TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/21/93 SAMPLE ID: BTR-SS20-S04-1												
RADAR STATION: Barter WEATHER: Foggy, misty, cool, breezy 40's°F												
SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 35 MAGNETIC HEADING: 180°												
FIXED POINT: Utility	pole on st	noulder of road	to weat	ther station	radar module.							
SAMPLE MATRIX: SAMPLERS: RT, RO	, ,	☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)				
TIME SAMPLED: 19			EPTH O	F SAMPLE	(feet): 1.0 water vis	ible sh	een					
SAMPLE DESCRIPTION												
SAMPLING METHOD:												
QA/QC SAMPLES COLLECTED:												
Trip Blank (TB) Duplicate of Water Sample ID												
☐ Ambient Condition	n Blank (Al	B) I Replica	ate of Sc	il Sample II	BTR-SS20-S03							
	WATER PARAMETERS											
TIME	PH	CO	NDUCTI\	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y -	TURBIDITY			
			МОМ	IITORING R	EADINGS							
	••••				HANBY SCREEN	IING						
TIME	PID READ	DING (ppm)	CG/LE	EL (%)	(standard/ppm)			+				
BG=Background; E	3Z=Breath	ing Zone; BH	=Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample (unco	ntained)			
		,	CHECK	ANALYSES	REQUESTED							
		BAF	ROW LA	\ Β			ANCHO	RAGE	E LAB			
ANALYSES	1	COI	NTAINEF	RS	ANALYSES	/	CON	TAINE	RS			
		WATER	3	SOIL			WATER		SOIL			
TPH	1	1 liter		8 oz	VOC (8260)	/	3 x 40 mi		4 oz			
РСВ				:	SVOC (8270)	1	1 liter		8 oz			
PESTICIDES					TOTAL METALS	/	1 liter		8 oz			
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter					
VOC-BTEX 8020	/				TDS		250 ml					
					TSS		250 ml					
					тос	1	500 ml		4 oz			
					TCLP		2 liters		2 x 8 oz			

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8/21/93 SAMPLE ID: BTR-SS20-SD01										
RADAR STATION: B	arter		_ WE							
SITE/AOC: <u>Bladder [</u>						OINT: 115		MAGNETIC HE	ADIN	G: <u>255°</u>
FIXED POINT: From	northwest	corner so	uthern	modul	e train.					
SAMPLE MATRIX:				ıt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>RO, MI</u>										
TIME SAMPLED: 20										
SAMPLE DESCRIPTION		ENTS: <u>6</u> -	-8" belo	ow wat	er surface	(depth of water) and	<u>d a few</u>	r inches into s	<u>edime</u>	nt vegetable
material, clay silt and		ble secon				T-100				
SAMPLING METHOD				Blor	-1. (ED)					
QA/QC SAMPLES C0 □ Trip Blank (TB)	OLLEGIED									
☐ Ambient Condition						e ID				
Ambient Conduct	II Diam (7.		———							
				WA	TER PARAN	METERS				
TIME	PH		COND	DUCTIV	ΊΤΥ	TEMPERATURE	SPE	CIFIC GRAVIT	Y T	TURBIDITY
19:45	7.8		1560			10°C]		1	
							1			
	+						+			
					·		Щ.			
				MON	IITORING R	EADINGS				
						HANBY SCREEN	VING			
TIME	PID READ	JING (ppm	n)	CG/LEL (%)		(standard/ppm)			\perp	
								}		
									1	
DC Baskground	D7 Prooth			Caraba	In NID No	Deadless UC-He		-: 0 Cample (
BG=Background, i	BZ=DIEau	ing zone,	ם ח	30(e) ioi	ie; inn=inu	Readings; HS=Hea	laspaci	3; S=Sample (uncoi	itainea)
			√ C	HECK	ANALYSES	S REQUESTED				
			BARR	OW LA	·Β			ANCHO	RAGE	LAB
ANALYCEC			CONT	TAINER:	·	*****		CON	TAINE	TDC
ANALYSES	<i>J</i>			Allven		ANALYSES	1	CON	Aine	
		W	ATER		SOIL			WATER	•	SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB						SVOC (8270)	1	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40 n	nl		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
	 •		1			TSS		250 ml		
		<u> </u>				тос	1	500 ml		4 oz
		<u> </u>				TCLP		2 liters		2 x 8 oz
					l'					

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

				ID: BTR-SS						
AACNETIC HEADING: 250s										
	TE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 130 MAGNETIC HEADING: 250° XED POINT: From northwest corner of southern module train - train B.									
FIXED POINT: From I	northwest	corner of s	southern mo							
SAMPLE MATRIX:		■ Se	diment (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO, ML			DEDTILO	CAMPIE	(fact): Codiment ou	rfo.co				
TIME SAMPLED: 20:							tor: codiment	campl	a collected :	
SAMPLE DESCRIPTIO		=N15: <u>Ve</u>	getable mat	eriai, ciay-si	it, and graver. In 6-d	UI Wa	ilei, seuiment	Sampi	o conected t	
few inches into sedimes SAMPLING METHOD:		ade and s	SCOOD							
	A/QC SAMPLES COLLECTED: Equipment Blank (EB) QA/QC Extra Volumes									
☐ Trip Blank (TB)					ID					
☐ Ambient Condition	n Blank (Al									
			WA	TER PARAI	METERS					
TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAVITY TURBIDITY										
1117150	1									
						_				
			МОГ	NITORING F	EADINGS		_			
HANBY SCREENING										
TIME	PID READ	ING (ppm) CG/L	EL (%)	(standard/ppm)					
								_		
									v	
BG=Background; E	3Z=Breath	ing Zone;	BH=Boreho	ole; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)	
			✓ CHEC	(ANALYSES	S REQUESTED					
			BARROW L	AB			ANCHO	RAGE	LAB	
ANALYSES			CONTAINE	 RS	ANALYSES	/	CON	TAINE	RS	
AIVALISES			TER	SOIL	AWALIOLO		WATER		SOIL	
ТРН	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB					SVOC (8270)		1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010		1 x 40 m	nl	4 oz	DISS METALS		1 liter		+	
VOC-BTEX 8020	1				TDS	•	250 ml			
					TSS		250 ml			
					тос		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	
	T								İ	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8/21/93</u>			SA	MPLE I	D: BTR-SS	320-SW01							
RADAR STATION: BE							re in lo	wer 40's°F					
SITE/AOC: Bladder [HEADI	NG: <u>255°</u>			
FIXED POINT: North													
SAMPLE MATRIX:				nt (SD)		Surface Water (SW)		Groundwater	(GW)				
SAMPLERS: <u>RO, MI</u> TIME SAMPLED: <u>19</u>				PTH O	FSAMPLE	(feet): 0-6" See co	mment	<u> </u>					
SAMPLE DESCRIPTION									ie sam	ole was also			
collected. A lot of livi				0.0 00		, , , , , , , , , , , , , , , , , , , ,	<u> </u>	,	, o o o	<u> </u>			
SAMPLING METHOD													
QA/QC SAMPLES CO	DLLECTED	: 🗆 E	quipm	ent Blar	nk (EB)	QA/QC Ex	tra Vol	umes					
			uplica	te of Wa	ater Sample	ID							
Ambient Condition	n Blank (Al	B) 🗆 R	leplica	te of So	il Sample II)							
					TER PARA								
TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAVITY TURI								URBIDITY					
19:05	7.4		1460			6°C				<0.0001			
				MON	ITORING R	EADINGS							
HANBY SCREENING													
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)							
	 ,												
BG=Background; I	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)			
			1	CHECK	ANALYSES	S REQUESTED							
			BARF	ROW LA	.B			ANCHO	RAGE	LAB			
ANALYSES			CON	TAINER	S	ANALYSES	1	CON	TAINE	RS			
		W	/ATER		SOIL			WATER		SOIL			
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz			
РСВ						SVOC (8270)	1	1 liter		8 oz			
PESTICIDES						TOTAL METALS		1 liter		8 oz			
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter					
VOC-BTEX 8020	1					TDS	1	250 ml					
	TSS ✓ 250 ml												
						тос	1	500 ml		4 oz			
						TCLP		2 liters		2 x 8 oz			

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

RADAR STATION: <u>B</u>	arter	· \	VEATHE	R: Cloudy,	overcast, temperatu	re in lo	wer 40's°F				
SITE/AOC: <u>Bladder [</u>	Diesel Spill	l, SS20	FEET	FROM FIX	(ED POINT: 130		MAGNETIC	HEADI	NG: <u>250°</u>		
FIXED POINT: North	west corne	er of southern	most mo	odule train (see map).						
SAMPLE MATRIX: [, ,		Surface Water (SW)		Groundwater	(GW)			
TIME SAMPLED: 19				E SAMPLE	(feet): 0-8"						
SAMPLE DESCRIPTION					,						
SAMPLING METHOD		•									
QA/QC SAMPLES CO			ment Bla	nk (FB)	☐ QA/QC Ex	tra Vol	umes				
☐ Trip Blank (TB)					BTR-SS20-SW						
☐ Ambient Condition	n Blank (A										
	•										
			WA	TER PARA	METERS	_		···			
TIME	PH	co	NDUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	- Y	TURBIDITY		
19:45	7.8	156	0		10°C			<0.0001			
						<u> </u>					
			МОМ	NITORING F	READINGS						
TIME	PID REAL	D READING (ppm) CG/LEL (%) HANBY SCREENING (standard/ppm)									
						,					
BG=Background;	BZ=Breath	ning Zone; BH	=Boreho	ole; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(unco	ntained)		
		v	CHECK	(ANALYSE	S REQUESTED						
		ВАГ	RROW LA	AB			ANCHO	DRAGE	LAB		
ANALYSES	1	СО	NTAINEF	 RS	ANALYSES	1	CON	ITAINE	RS		
		WATE	R	SOIL			WATER	- 100	SOIL		
ТРН	1	1 liter		8 oz	VOC (8260)		3 x 40 mi		4 oz		
РСВ]			SVOC (8270)		1 liter		8 oz		
PESTICIDES					TOTAL METALS		1 liter		8 oz		
HVOC 8010		1 x 40 ml		4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	1				TDS		250 ml				
					TSS		250 ml				
					тос		500 ml		4 oz		
					TCLP		2 liters	ļ	2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 8/21/93			SA	MPLE I	D: BTR-SS	320-SW03				
RADAR STATION: Barter WEATHER: Overcast, temperature in lower 40's°F										
SITE/AOC: Bladder Diesel Spill, SS20 FEET FROM FIXED POINT: 130 MAGNETIC HEADING: 250°										
FIXED POINT: From	northwest	corner n	ortherr	n module	e train B.					
SAMPLE MATRIX: SAMPLERS: RO, M	. ,		Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: 19		**	Di	EPTH O	E CAMPI E	(feet): 0-8"				
SAMPLE DESCRIPTION							ss from	sW01		
SAMPLING METHOD			1100	or water	along woo	t barnt or porta abro	00 11011			
QA/QC SAMPLES CO			auiom	ent Blar	nk (FB)	☐ QA/QC Ex	tra Vol	umes		
☐ Trip Blank (TB)	·				. ,	BTR-SS20-SW0				
☐ Ambient Conditio	n Blank (Al									
				WA	TER PARA	METERS				
TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAVITY TURBID									URBIDITY	
19:45	7.8		1560			10°C				
						:				
	,			MON	ITORING F	I EADINGS				
MONITORING READINGS										
TIME	PID READ	PID READING (ppm)								
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncoi	ntained)
			1	CHECK	ANALYSE	S REQUESTED				
			BARI	ROW LA	λB		-	ANCHO	RAGE	E LAB
ANALYSES	1		CON	ITAINER	S	ANALYSES	1	CON	TAINE	RS
·		v	VATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1	ļ				TDS		250 ml		
						TSS		250 ml		
						TOC		500 ml	1	4 oz
		1				TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

SAMPLE COLLECTION LOGS FOR THE JP-4 SPILL (SS21) (Formerly identified as AOC15)

DATE: 8/21/93			SA	MPLE	D: BTR-SS	S21-S01				
RADAR STATION: _E	Barter		W	EATHER	R: <u>Foggy, i</u>	misty, cool				
SITE/AOC: JP-4 Sp							MA	AGNETIC HEA	DING:	Southwest
FIXED POINT: Turn	in fence lin	e and in I	line wit	th north	edge of no	orthern tank.				
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>JM, P</u>				-					<u>.</u>	
TIME SAMPLED: 1						SAMPLE (feet): 0-6				
SAMPLE DESCRIPT		ENTS: <u>F</u>	our clo	sely sp	aced grab	samples from closel	y space	ed small seeps	s. San	nple media is
compacted gravel fil		nd 20222								
SAMPLING METHOL				and Dia	-l- (ED)	T 04/00 F	\ / - 1			
QA/QC SAMPLES C ☐ Trip Blank (TB)	OLLEGIED				, ,	☐ QA/QC Ex		umes		
☐ Ambient Condition	on Blank (A	B) [] B	rupiica: Ienlicat	te of Sc	alei Sample sil Sample II	e ID				
- Ameloni Gondin	SIT BIAIN (7)	<i>b)</i>	Српоа							
				WA	TER PARA	METERS	.,			
TIME		DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	URBIDITY		
							1			
							 			
							<u> </u>			
				MON	IITORING F	EADINGS				
						HANBY SCREEN	NING			
TIME	PID READING (ppm) CG/LEL (%) (standard/ppm)									
		•								
		. –	1					<u> </u>	L	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	.B			ANCHO	RAGE	LAB
*******			CON	TAINER		411110000	_	CON	TAINE	DC
ANALYSES	/				<u> </u>	ANALYSES		CON	TAINE	no I
		W	/ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 mi		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES	1				:	TOTAL METALS		1 liter		8 oz
HVOC 8010	1	3 x 40	ml		8 oz	DISS METALS		1 liter		
VOC-BTEX 8020	C PTEV 9000									
TSS 250 ml -										
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
				*					L	
1		l			L	1	Ī			l

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8/21/93</u>		s	AMPLE	ID: BTR-SS	S21-S02					
	Barter WEATHER: Foggy, cool									
SITE/AOC: JP-4 Sp	oill, SS21	F	EET FR	OM FIXED I	POINT: <u>10</u>	MA	GNETIC HEA	DING:_	Northwest	
FIXED POINT: Adja	cent to turn	in fence line r	ear ben	d in pipeline	9.					
SAMPLE MATRIX:	Soil (S)	☐ Sedim	ent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>PG/J</u> I										
TIME SAMPLED: 1						+				
SAMPLE DESCRIPT	ION/COMMI	ENTS: Scrape	ed surfac	e before sar	mpling. Fine - med s	ands ar	nd gravels; hea	avy pe	roleum odo	
and staining.										
SAMPLING METHO										
QA/QC SAMPLES C	COLLECTED									
☐ Trip Blank (TB)					e ID					
☐ Ambient Conditi	on Blank (Al	B) L Replic	ate of Sc	oil Sample I	D					
			WA	TER PARA	METERS					
TIME	PH	CO	NDUCTI\	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γΙ	URBIDITY	
TIVIC	111		1000111		TEM CITATION					
						-				
						1				
I										
	· · · · · · · · · · · · · · · · · · ·		MON	IITORING F	READINGS		T			
					HANBY SCREEN	IING				
TIME	PID READ	DING (ppm)	CG/LI	EL (%)	(standard/ppm)					
BO B 1	D7 D	: 7 DU	Dorobo	la: ND-Na	Readings; HS=Hea	denac	o: S-Sample	(uncor	ntained)	
BG=Background	; BZ=Breath	ing zone, bn	=bulenc	ne, inn=ino	neadings, 113—11ec	uspaci	s, o-oampie	(di looi	itali icaj	
		J	CHECK	ANALYSE	S REQUESTED					
		BAF	ROW LA	 ∖B			ANCHO	RAGE	LAB	
									DC	
ANALYSES	/	CO	NTAINEF	RS	ANALYSES	/	CON	TAINE	no I	
		WATE	7	SOIL			WATER		SOIL	
ТРН	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
РСВ					SVOC (8270)	1	1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	3 x 40 ml		8 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 ml			
					тос	1	500 ml		4 oz	
			· · · · · · · · · · · · · · · · · · ·		TCLP		2 liters		2 x 8 oz	
								•		
11	l			1	1					

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8/21/93</u>		****	SA	MPLE I	D: BTR-SS	S21-S03				
RADAR STATION: Barter WEATHER: Foggy, cool, 40°F										
ITE/AOC: <u>JP-4 Spill, SS21</u> FEET FROM FIXED POINT: <u>15'</u> MAGNETIC HEADING: <u>Easterly ~90°</u>										
FIXED POINT: Pipeli	IXED POINT: Pipeline west of culvert in line with pipe entrance on east side of building 2002.									
SAMPLE MATRIX:	AMPLE MATRIX: ■ Soil (S) ☐ Sediment (SD) ☐ Surface Water (SW) ☐ Groundwater (GW)									
SAMPLERS: PG/JM								······		
	ME SAMPLED: 19:00 DEPTH OF SAMPLE (feet): 0 - 0.5", Surface									
SAMPLE DESCRIPTION	AMPLE DESCRIPTION/COMMENTS: Fine sands and silts and sludges. Heavy petroleum odor.									
SAMPLING METHOD: Dedicated scoop										
DA/QC SAMPLES COLLECTED:										
☐ Trip Blank (TB) ☐ Duplicate of Water Sample ID										
Ambient Condition	Ambient Condition Blank (AB) Replicate of Soil Sample ID									
	WATER PARAMETERS									
TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAVITY TURBIDITY										TURBIDITY
	:									
MONITORING READINGS										
HANBY SCREENING										
TIME	PID READING (ppm) CG/LEL (%) (standard/ppm)									
BG=Background; I	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	ιB			ANCHO	RAGE	LAB
ANALYSES			CON.	TAINER	S	ANALYSES		CON	TAINE	RS
AIVALIOLO		14				AIVALIBLES	/			1
TOU			/ATER		SOIL	1,400,4000		WATER		SOIL
TPH		1 liter			8 oz	VOC (8260)		3 x 40 ml		8 oz
PCB		1 liter			8 oz	SVOC (8270)		1 liter		8 oz
PESTICIDES		1 liter		<u> </u>	8 oz	TOTAL METALS		1 liter		8 oz
HVOC 8010	<u> </u>	3 x 40			8 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1	3 X 40	ml		8 oz	TDS		250 ml		
						TSS		250 ml		
			·			тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

RADAR STATION: <u>Barter</u> SITE/AOC: <u>JP-4 Spill, SS</u> FIXED POINT: <u>Southern t</u>	<u></u>	WE	EATHER	Foagy c	ool misty					
				<u> oggy, o</u>	OOI, ITHOU					
FIXED POINT: Southern t	<u>521 </u>	FEE	T FROM	1 FIXED PO	INT: <u>47'</u>	MAGNE	TIC HEADING	i:_ <u>NW</u>	~ 300°	
	telepho	ne pole along	fence lir	ne.						
SAMPLE MATRIX: SC	oil (S)	☐ Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: <u>JB, RT</u> TIME SAMPLED: <u>19:15</u>			П	EPTH OF S	SAMPLE (feet): 0-6"	Surfac	ce			
SAMPLE DESCRIPTION/O	COMME		_					or shee	en present.	
OAM LE BEGOIM HOTO	00111111									
SAMPLING METHOD:										
QA/QC SAMPLES COLLE		☐ Equipm	ent Blar	nk (EB)	☐ QA/QC Ex	tra Volu	umes			
☐ Trip Blank (TB)					ID					
☐ Ambient Condition Bla	ank (AE	=								
				TER PARAN						
TIME PH CONDUCTIVITY TEMPERATURE SPECIFIC GRAVITY							ΥT	URBIDITY		
						1				
			MON	ITORING R	EADINGS					
TIME PID	PID READING (ppm) CG/LEL (%) (standard/ppm)									
BG=Background; BZ=	-Breathi	ing Zone; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)	
			CHECK	ANALYSES	REQUESTED					
			ROW LA				ANCHO	RAGE	LAB	
ANALYSES	/	CON	TAINER	S	ANALYSES	/	CON	TAINE	1	
		WATER		SOIL			WATER		SOIL	
TPH	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ					SVOC (8270)		1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	3 x 40 ml	1	8 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1	3 x 40 ml			TDS		250 ml			
					TSS		250 ml			
					тос		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9/1/93</u>			SA	MPLE I	D: BTR-SS	S21-2S05				
RADAR STATION: Barter WEATHER: Foggy cool, misty, ~40°F										
SITE/AOC: JP-4 Spil	I, SS21		_ FEE	T FROM	I FIXED PO	NT: <u>26'</u>	MAG	NETIC HEADII	NG: <u>N</u>	IW
FIXED POINT: South	nern flange	joint adja	acent to	o the be	end in the p	pipeline, near the en	d of the	e fence.	• • • • • • • • • • • • • • • • • • • •	
SAMPLE MATRIX:	Soil (S)	□s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: JB, RT										
TIME SAMPLED: 19										
	AMPLE DESCRIPTION/COMMENTS: Sample media is wet compact gravel with fine sands. the area appears to be lower or									
slightly depressed compared to the rest of the area. Sample collected ~2' down slope from cable tie-down.										
SAMPLING METHOD: Disposable scoop										
QA/QC SAMPLES COLLECTED:										
☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID										
THE PARTY OF THE P	T Blain (r	b)	гориоц							
WATER PARAMETERS										
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	[Y]	TURBIDITY
MONITORING READINGS										
						HANBY SCREEN	NING	"		
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)				
BG-Background:	R7—Broath	ing Zong		Porcho	is: NP_No	Readings; HS=Hea	donac	n: C-Cample	(4000)	otoinad)
BG=Background,	DZ-Dieam	iiig zone	, 011–	Doleilo	ie, inn=ino	neadings, ns=nea	auspaci	e, 3=3ample	(unco	itaineu)
	· · · · · · · · · · · · · · · · · · ·			CHECK	ANALYSE	S REQUESTED				
			BARF	ROW LA	λB			ANCHO	ORAGE	E LAB
ANALYSES			CON	TAINER	ıs.	ANALYSES	1	CONTAINE		:RS
AIVALIBLE						ANALISES	•			T
		W W	/ATER		SOIL	T		WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES						TOTAL METALS		1 liter		8 oz
HVOC 8010	1	3 x 40	ml		8 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
			-							
L	L	<u></u>			L		<u> </u>	<u> </u>		<u> L</u>

Preservation:

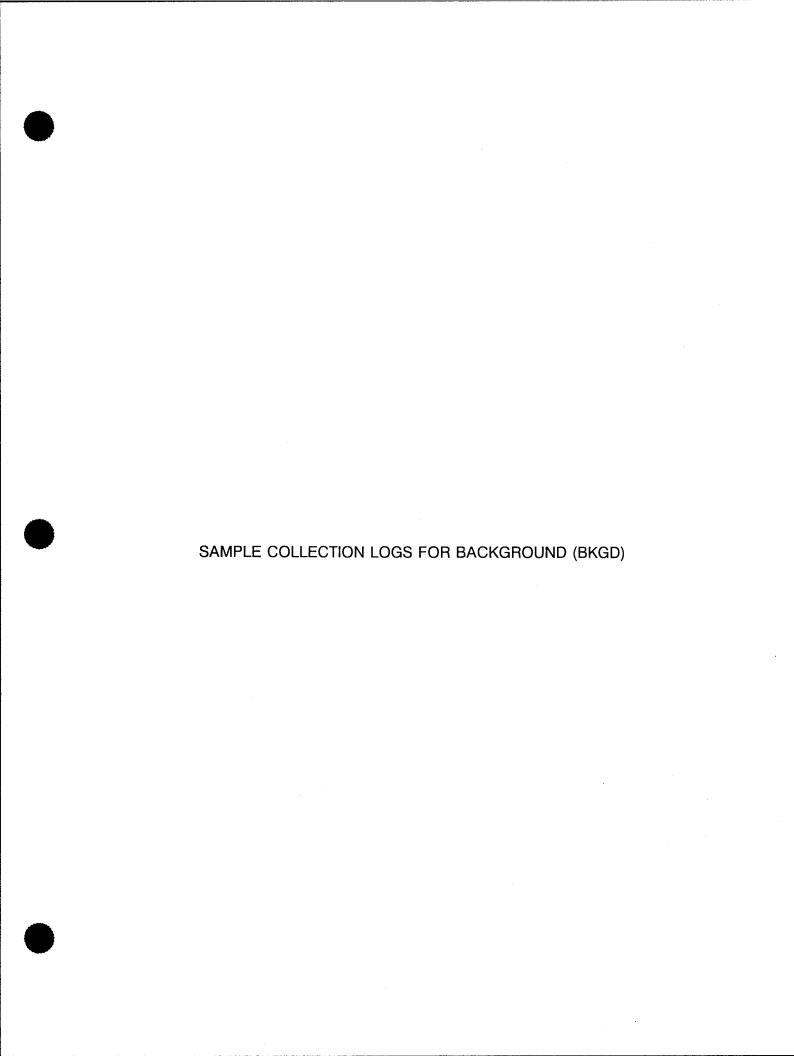
HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:



ATE: 8-17-93 SAMPLE ID: BTR-BKGD-S01 ADAR STATION: Barter WEATHER: Sunny, windy, cool, 40°F										
RADAR STATION: _E	Barter		_ WEATHE	R: Sunny	, windy, cool, 40°F					
SITE/AOC: BKG	D		_ FEET FR	OM FIXED I	POINT: 300		MAGNETIC HE	EADIN	G: <u>210°</u>	
FIXED POINT: Fro	m the sout	hwest corn	er of the mo	ost south co	mmunication radar	(Alasco	om)			
_SAMPLE MATRIX:		☐ Se	diment (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO										
TIME SAMPLED: 12			_ DEPTH C		. ,				****	
SAMPLE DESCRIPTI	ION/COMM	ENTS: <u>Be</u>	neath tundr	a, dark blac	k soil, roots flat low	lying fi	eld south of A	lascor	n radar.	
SAMPLING METHO	D: <u>Disposa</u>	able scoop	<u> </u>						4	
_QA/QC SAMPLES C	COLLECTE	D: 🗌 Eq	uipment Bla	ınk (EB)	☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)					= ID					
☐ Ambient Condition	on Blank (A			-					***************************************	
			WA	TER PARA	METERS					
TIME	PH	(CONDUCTIV	VITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY	
			МОМ	NITORING F	EADINGS	'				
					HANBY SCREEN	NING				
TIME	PID READ	DING (ppm) CG/LI	EL (%)	(standard/ppm)					
BG=Background;	BZ=Breath	ing Zone; I	BH=Boreho	ole; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(unco	ntained)	
	:		✓ CHECK	(ANALYSES	S REQUESTED					
-		E	BARROW LA	AB			ANCHO	RAGE	LAB	
ANALYSES		(CONTAINER	RS	ANALYSES	1	CON	TAINE	:RS	
		WA	TER	SOIL	71147121020		WATER		SOIL	
ТРН	1	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ					SVOC (8270)	-	1 liter		8 oz	
PESTICIDES	/				TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40 m	1	4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 ml			
					тос		500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet) (i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

SITE/AOC: BKGD			WE	EATHER	R. Sunny	windy cool 40°F							
		RADAR STATION: Barter WEATHER: Sunny, windy, cool, 40°F											
FIXED POINT: From t	SITE/AOC: BKGD FEET FROM FIXED POINT: 300 MAGNETIC HEADING: 195° EXED POINT: From the southwest corner of the most southern communication radar (Alascom)												
	the south	nwest corr	ner of	the mo	st southern	communication rac	dar (Ala	scom)					
SAMPLE MATRIX:						Surface Water (SW)		Groundwater	(GW)				
SAMPLERS: RO, M TIME SAMPLED: 11:25	<u> </u>			DTUO	E CAMPLE	(foot): 0.5							
SAMPLE DESCRIPTION							of Alaso	om earth stati	on da	ark black soil			
roots.	N/COIVIIVI	EN13. <u>U</u>	IIGEIII	eatti tui	iura, iow iyi	ng nat area south c	n Alasu	om earm stan	J11, UE	IN DIACK SOII			
SAMPLING METHOD:	Disposa	ble scoop)					· · · · · · · · · · · · · · · · · · ·					
QA/QC SAMPLES COLI				ent Ria	nk (EB)	□ OA/OC Ex	tra Vol	umes					
☐ Trip Blank (TB)						ID							
☐ Ambient Condition E	Blank (Al	B) 🗌 Re	eplicat	e of Sc	il Sample II)							
		<u> </u>		*.**	TER PARA								
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ .	TURBIDITY			
								······································					
1				MON	ITORING R	FADINGS			·				
	MONITORING READINGS HANBY SCREENING												
TIME P	ID READ	DING (ppn	n)	CG/LE	EL (%)	(standard/ppm)	1 1110						
BG=Background; BZ	=Breath	ing Zone;	BH=I	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)			
			. (CHECK	ANALYSES	REQUESTED							
			BARR	OW LA	ΔB			ANCHO	RAGI	E LAB			
ANALYSES	1		CONT	TAINER	S	ANALYSES	1	CON	TAINE	RS			
		W	ATER		SOIL			WATER		SOIL			
TPH	1	1 liter			8 oz	VOC (8260)	J	3 x 40 ml		4 oz			
РСВ	1					SVOC (8270)	1	1 liter		8 oz			
PESTICIDES	1					TOTAL METALS	1	1 liter		8 oz			
HVOC 8010	1	1 x 40 n	nl		4 oz	DISS METALS		1 liter					
VOC-BTEX 8020 ✓ TDS 250 ml													
						TSS		250 ml					
						тос	1	500 ml		4 oz			
						TCLP		2 liters		2 x 8 oz			

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

ATE: <u>8-17-93</u> SAMPLE ID: <u>BTR-BKGD-S03</u>											
RADAR STATION: B											
SITE/AOC: BKG	D		F	EET FR	OM FIXED	POINT: 305	MA	AGNETIC HEA	DING:	<u>155°</u>	
FIXED POINT: From	m south of	ladder or	west	troposp	<u>ohere anter</u>	na signal generator					
SAMPLE MATRIX:	Soil (S)	□ s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO											
TIME SAMPLED: 15											
SAMPLE DESCRIPTION	ON/COMM	ENTS: Be	eneath	tundra,	black soil,	roots, relatively flat	pen ar	ea south of tro	poshe	re antennas	
SAMPLING METHOD): Disposa	ble scoor									
QA/QC SAMPLES CO				ent Blar	nk (EB)	□ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)					, ,	e ID					
☐ Ambient Conditio	n Blank (Al										
	<u> </u>			WA	TER PARA	METERS					
TIME	PH		CON	DUCTIV		TEMPERATURE	SDE	CIFIC GRAVIT	~ T-	URBIDITY	
11101	111		0011	DOCTIV	111	TEWIFERATORE	J SI L	OITIO GNAVII	'	UNDIDITI	
							ļ			····	
				MON	ITORING F	EADINGS	<u> </u>				
	MONITORING READINGS HANBY SCREENING										
TIME	PID READ	DING (ppr	n)	CG/LE	EL (%)	(standard/ppm)	MING				
					······································						
									_		
						<u> </u>					
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)	
			1	CHECK	ANALYSE	S REQUESTED					
			BARF	ROW LA	.B			ANCHO	RAGE	LAB	
ANALYSES			CON	TAINER	<u> </u>	ANALYSES		CON	TAINE	RS	
ANALISES						ANALISES	1			I	
			ATER		SOIL			WATER		SOIL	
TPH	/	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
PCB	1					SVOC (8270)		1 liter		8 oz	
PESTICIDES	1			1		TOTAL METALS		1 liter		8 oz	
HVOC 8010	OC 8010					DISS METALS		1 liter			
VOC-BTEX 8020 ✓					***	TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8-17-93 SAMPLE ID: BTR-BKGD-S04											
RADAR STATION: B	arter		WEATHE	R: Sunny	windy, cool, 40°F						
SITE/AOC: BKG	<u> </u>		_ FEET FRO	OM FIXED F	POINT: 300	M	IAGNETIC HE	ADING	i: <u>210°</u>		
FIXED POINT: From	m the south	nwest corne	r of the mo	st south co	mmunication radar	(Alasco	om).		 		
SAMPLE MATRIX:	Soil (S)	☐ Sed	liment (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: RO									<u> </u>		
TIME SAMPLED: 12											
SAMPLE DESCRIPTI	ON/COMM	ENTS: <u>Ber</u>	neath tundra	a, black soil	roots, flat low lying	area s	outh of Alasco	m rac	ar.		
044511101457110	D D'	-1-1-									
_SAMPLING METHO	'					/ - 1					
QA/QC SAMPLES C						tra Vol	umes				
☐ Trip Blank (TB)		·		•	D						
☐ Ambient Conditio	n Blank (A	в) 🔳 нер	nicate of Sc	on Sample II	D BIH-BNGD-SUI						
			WA	TER PARA	METERS						
TIME	PH	C	CONDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ 1	URBIDITY		
11111						 			· · · · · · · · · · · · · · · · · · ·		
	<u> </u>		1401	UTODINO 5	FADINGS						
			MON	NITORING R			I				
TIME	פום פבגר	DING (ppm)	CG/II	EL (%)	HANBY SCREEN (standard/ppm)	IING					
TIME	FID NEAL	JING (ppm)	CG/Li	LL (%)	(Standard/ppin)			\dashv			
BG=Background;	BZ=Breath	ing Zone; E	BH=Boreho	ole; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)		
	·										
			✓ CHECK	ANALYSES	REQUESTED						
		В	ARROW LA	λ B			ANCHO	RAGE	LAB		
ANALYSES	/	C	ONTAINER	RS	ANALYSES	./	CON	TAINE	RS		
ANALIOLO				1	7117121020		\A/ATED		SOIL		
		WAT	IER	SOIL	<u> </u>		WATER				
TPH	/	1 liter		8 oz	VOC (8260)		3 x 40 ml		4 oz		
РСВ	1				SVOC (8270)		1 liter		8 oz		
PESTICIDES	1				TOTAL METALS		1 liter		8 oz		
HVOC 8010 ✓ 1 x 40 ml											
VOC-BTEX 8020	1				TDS		250 ml				
					TSS		250 ml				
					тос		500 ml		4 oz		
40-4					TCLP		2 liters		2 x 8 oz		
		TOLP Z INTERS Z X O UZ									

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>8-17-93</u>											
RADAR STATION: Barter WEATHER: Sunny, clear, windy, cool, 40°F SITE/AOC: BKGD FEET FROM FIXED POINT: 30 MAGNETIC HEADING: South											
SITE/AOC: BKGI	D		FEET	FROM FIXED	POINT: <u>30</u>	MA	GNETIC HEAL	DING:	South		
FIXED POINT: Whe	ere road me	eets fresh	water lake	e at shore of fi	eshwater lake 30 fee	t south	of road along	shore	line.		
SAMPLE MATRIX:		■ S	ediment (SD)	Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: RO											
TIME SAMPLED: 14				H OF SAMPLE							
SAMPLE DESCRIPTION	ON/COMM	ENIS: <u>G</u>	iravel bott	tom, some pla	nts, mud. Plants alo	ng sho	reline down to	water	edge.		
SAMPLING METHOD): Disposa	ble scoop)								
QA/QC SAMPLES CO	OLLECTED	: 🗆 E	quipment	Blank (EB)	☐ QA/QC Ex	tra Vol	umes				
☐ Trip Blank (TB)		□D	uplicate o	of Water Samp	e ID						
☐ Ambient Conditio	n Blank (Al										
				WATER PARA	METERS						
TIME	PH		CONDU	CTIVITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	URBIDITY		
				40NITODINO		1					
	MONITORING READINGS										
TIME	PID READ	DING (ppr	m) C	G/LEL (%)	HANBY SCREEN (standard/ppm)	VING					
						·					
BG=Background;	BZ=Breath	ing Zone	; BH=Bor	rehole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)		
			✓ CH	ECK ANALYSE	S REQUESTED						
			BARROV				ANCHO	RAGE	LAB		
ANALYSES			CONTAIL		ANALYSES	1	CON	TAINE	HS		
		W	ATER	SOIL	<u> </u>		WATER		SOIL		
TPH	1	1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz		
PCB	1			į	SVOC (8270)	1	1 liter		8 oz		
PESTICIDES	1		· · · · · · · · · · · · · · · · · · ·		TOTAL METALS	1	1 liter		8 oz		
HVOC 8010							1 liter				
VOC-BTEX 8020	1				TDS		250 ml	· · · · · · · · · · · · · · · · · · ·	***		
					TSS		250 mi				
					тос	1	500 ml		4 oz		
			**		TCLP		2 liters		2 x 8 oz		
	:										

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8-17-93			SA	MPLE I	D: <u>BTR-Bk</u>	GD-SD02				
RADAR STATION: B	arter		WE	EATHEF	R: Sunny,	windy, cool, 40°F				
SITE/AOC: BKGI	D		FE	ET FRO	M FIXED F	POINT: 240	N	MAGNETIC HE	ADINO	3: <u>115°</u>
FIXED POINT: From	m south lac	dder of ea	ast trop	ospher	e antenna s	signal generator.				
SAMPLE MATRIX:	☐ Soil (S)	■ S	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO	, ML									
TIME SAMPLED: 16	5:25		DE							
SAMPLE DESCRIPTION	ON/COMM	ENTS: A	lot of	vegetat	tion along s	shoreline, vegetation	mattin	g on bottom,	some	silt mixed in
OAARDUNG METUOF). Diamond									
SAMPLING METHOD				Di	-l. (ED)	T 04/00 Fv	tro Vol	ımaa	-	
QA/QC SAMPLES CO	OLLEGIED									
☐ Trip Blank (TB) ☐ Ambient Conditio	n Blank (Al					e ID				
Ambient Conditio	III DIAIIK (AI	b) 🗆 n	epiicai	ie oi so	ii Sample ii					
				WA	TER PARA	METERS	· · · · · ·			
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ Τ	URBIDITY
				MON	ITORING R	FADINGS				
						T	IINC			
TIME	PID READ	OING (ppi	m)	CG/LE	EL (%)	HANBY SCREEN (standard/ppm)	NING			
		(1-1-1								
									-	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)
				CHECK	ANALYSES	S REQUESTED				
								ANCHO	DAGE	LAR
			BARE	ROW LA				ANOTO	TAGE	LAD
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		w	ATER		SOIL			WATER		SOIL
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES	1					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020						TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>9-3-93</u>			s	AMPLE I	D: BTR-B	(GD-2SD03					
RADAR STATION: Barter WEATHER: Misty, foggy, balmy SITE/AOC: BKGD FEET FROM FIXED POINT: MAGNETIC HEADING: 180°											
SITE/AOC: BKG	D		FE	EET FRO	OM FIXED F	POINT:	M	AGNETIC HEA	DING	180°	
FIXED POINT: 200	feet due s	outh from	easte	rn proje	ector tower	of white alice compl	ex.				
SAMPLE MATRIX:	` '	■ S	edime	ent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: ML					E 041451 E	<i>(</i> ,), , , , , , , , , , , , , , , , , ,					
TIME SAMPLED: 13						• • • • • • • • • • • • • • • • • • • •	:- DTD	DIVOD CODOC		- 000-	
SAMPLE DESCRIPTI	ON/COMIN	EN15: <u>1</u>	unara	mat, sa	iturated, no	odor. This sample	ISBIH	-BKGD-25D02	on th	e COCs.	
SAMPLING METHOD	D: Scoop					W - 1					
QA/QC SAMPLES C	OLLECTED): 🗆 E	quipm	nent Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB))uplica	te of W	ater Sample	e ID					
☐ Ambient Condition	on Blank (A	B) 🗆 F	Replica	te of Sc	il Sample I	D					
	WATER PARAMETERS										
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	TURBIDITY	
				MON	IITORING F	READINGS					
TIME PID READING (ppm) CG/LEL (%) (standard/ppm)											
TIIVIE	FID REAL	JING (pp	111)	CG/Li	LL (%)	(standard/ppm)					
									-		
		·									
BG=Background;	BZ=Breath	ning Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample (uncor	ntained)	
			1	CHECK	ANALYSE	S REQUESTED					
			BARI	ROW LA	λB			ANCHO	RAGE	LAB	
ANALYSES	1		CON	ITAINEF	IS	ANALYSES	1	CON	TAINE	RS	
		W	/ATER		SOIL			WATER		SOIL	
TPH	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz	
РСВ						SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	HVOC 8010										
VOC-BTEX 8020	1					TDS		250 ml			
				****		TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 8-17-93			SA	MPLE I	ID: <u>BTR-BK</u>	(GD-SW01					
RADAR STATION: Barter WEATHER: Sunny, clear, windy, 40°F											
SITE/AOC: BKGI						POINT: <u>30</u>	M	AGNETIC HEA	ADING	: South	
FIXED POINT: Whe	ere road me	ets fresh	ı water	lake at	fresh water	r lake, 30 feet south	of road	d along shore	line.		
SAMPLE MATRIX:		□s	edime	nt (SD)	= \$	Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RO											
TIME SAMPLED: 14							· · · - loo	المام المام المام		- 11:	
SAMPLE DESCRIPTION											
SAMPLING METHOD): Subsuma	ice. Dipp	ed bo	ttles fille	∌d in lake, τr	ansferred to VUAs	alb po	ttle beneam su	ласе	and fill), filte	
TDS, DIS metals.					. (=5)		· \ /al				
QA/QC SAMPLES CO	OLLECTED										
☐ Trip Blank (TB)	- Diank (Al					e ID					
☐ Ambient Conditio	л вапк (А	8) U n	eplicat	16 01 20	III Sample ii	<i></i>					
				WA	TER PARA	METERS					
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 1	TURBIDITY	
13:40 7.7 620 41°F <0.0005										<0.0005	
				MON	IITORING R	EADINGS					
						HANBY SCREEN			\Box		
TIME	PID READ	ING (pp	m)	CG/LE	EL (%)	(standard/ppm)			\bot		
			_			T					
				1							
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	ıdspac	e; S=Sample	(uncor	ntained)	
	· · · · · ·		-			S REQUESTED					
				ROW LA				ANCHO	RAGE	LAB	
											
ANALYSES	/		CON	TAINER	is	ANALYSES	1	CUN	TAINE	HS	
		w	VATER		SOIL			WATER		SOIL	
ТРН	/	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
РСВ	1					SVOC (8270)	1	1 liter		8 oz	
PESTICIDES	1					TOTAL METALS	1	1 liter		8 oz	
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS	1	1 liter			
VOC-BTEX 8020	/			1		TDS	1	250 ml			
						TSS	1	250 ml			
						тос	1	500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation: HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format: Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 8-17-93			SA	MPLE I	D: BTR-BK	GD-SW02				
RADAR STATION: B	arter	····	w	EATHER	R: <u>Sunny,</u>	windy, cool, 40°F				
SITE/AOC: BKG)		FE	ET FRO	M FIXED F	POINT: 240	^	MAGNETIC HE	ADING	G: <u>115°</u>
FIXED POINT: Fron	n south lac	lder on e	ast tro	posphe	re antenna	signal generator.				
SAMPLE MATRIX:] Soil (S)	□ s	edime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RO,	ML									
TIME SAMPLED: 16										
SAMPLE DESCRIPTION		ENTS: <u>N</u>	ortherr	n edge c	of pond alon	ig bank, a lot of pond	d veget	ation along sh	<u>oreline</u>	, clear water
vegetation mat on bo										
SAMPLING METHOD										
QA/QC SAMPLES CO	DLLECTED									
☐ Trip Blank (TB)						ID				
☐ Ambient Condition	n Blank (Al	B)	leplica	te of So	il Sample II	D				
				WA	TER PARA	METERS				
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y 7	URBIDITY
16:00	8.0		530			41°F				<0.0001
	1						 			
<u> </u>										
				MON	ITORING R	EADINGS				
						HANBY SCREEN	IING			
TIME	PID READ	ING (pp	m)	CG/LE	L (%)	(standard/ppm)				
DC -Pookersunds I	D7 - Prooth	ina Zana	. DU.	Dorobo	lo. ND. No.	Pandings, UC, Use		n C. Comple	<u> </u>	atainad)
BG=Background, i	DZ=Diealii	ang zone	, DN=	Doleilo	ie, inn=no	Readings; HS=Hea	iuspaci	e, s=sample	(uncoi	itairieu)
			1	CHECK	ANALYSES	REQUESTED				
			BAR	ROW LA	λB			ANCHO	DRAGE	LAB
ANALYSES			CON	TAINER	S	ANALYSES	√	CON	TAINE	RS
		١٨	/ATER		SOIL	, , , , , , , , , , , , , , , , , , , ,		WATER		SOIL
TPH		1 liter	/A L 1		8 oz	VOC (80C0)				4 oz
	1	i iilei			8 02	VOC (8260)	/	3 x 40 ml		! :
PCB	✓					SVOC (8270)		1 liter		8 oz
PESTICIDES	1			1		TOTAL METALS DISS METALS	1	1 liter		8 oz
HVOC 8010	C 8010						1	1 liter		
VOC-BTEX 8020	BTEX 8020 ✓					TDS	1	250 ml		
						TSS	1	250 ml		
				:		тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

SAMPLE COLLECTION LOGS FOR QA/QC

DATE: <u>08/16/93</u>			SAMPLE	ID: <u>BTR-AE</u>	301				 		
RADAR STATION: B	ION: Barter WEATHER:										
SITE/AOC:			FEET FROM	I FIXED PO	INT:	_ MA	GNETIC HEAD	ING:			
FIXED POINT:											
SAMPLE MATRIX:			diment (SD)		Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: <u>RT, JM</u> TIME SAMPLED: <u>15</u>	1, PG		DEDTU O	CAMPLE	(fact):						
SAMPLE DESCRIPTION									•		
OAWII EL DESCIII III	O14/OOIVIIVI	EN13									
SAMPLING METHOD	: Grab										
QA/QC SAMPLES CO	DLLECTED	: 🗆 Eq	uipment Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes				
☐ Trip Blank (TB)		☐ Du	plicate of W	ater Sample	e ID						
Ambient Condition	n Blank (A	B) 🗌 Re	plicate of Sc	oil Sample I	D						
				TER PARA							
TIME	PH	(CONDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y -	TURBIDITY		
		<u> </u>	MON	IITORING F	EADINGS						
					HANBY SCREEN	JING					
TIME	PID READ	DING (ppm) CG/LE	EL (%)	(standard/ppm)	11110					
BG=Background; I	BZ=Breath	ing Zone;	BH=Boreho	ole; NR=No	Readings; HS=Hea	dspac	e; S=Sample (uncoi	ntained)		
			✓ CHECK	ANALYSES	S REQUESTED						
		l e	BARROW LA				ANCHO	RAGE	- LAB		
ANALYSES			CONTAINER		ANALVOEO		CON				
ANALYSES	/			ĭ	ANALYSES	/		AINE	1		
			TER	SOIL			WATER		SOIL		
TPH		1 liter		8 oz	VOC (8260)	/	3 x 40 mi	*****	4 oz		
PCB					SVOC (8270)		1 liter		8 oz		
PESTICIDES					TOTAL METALS		1 liter		8 oz		
HVOC 8010	1	1 x 40 m	nl	4 oz	DISS METALS		1 liter				
VOC-BTEX 8020	1				TDS		250 ml				
				ļ	TSS		250 mi				
					тос		500 ml		4 oz		
					TCLP		2 liters		2 x 8 oz		
							<u> </u>				

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/21/93</u>			SAMPL	_E ID: <u>BTR-AB</u>	302						
RADAR STATION: B	Barter WEATHER: MAGNETIC HEADING:										
					INT:	_ MA	SNETIC HEAD	ING:			
FIXED POINT:											
SAMPLE MATRIX:	• •			SD) 🗆	Surface Water (SW)		Groundwater	(GW)			
SAMPLERS: <u>ML, PC</u> TIME SAMPLED: <u>15</u>	3 :·M		DEDTL	OE SAMPLE	(foot):						
SAMPLE DESCRIPTION											
SAMPLE DESCRIPTION	O14/OOIVIIVI	L:\\10.					· · · · · · · · · · · · · · · · · · ·				
SAMPLING METHOD											
QA/QC SAMPLES CO	OLLECTED										
☐ Trip Blank (TB)		☐ Di	uplicate of	Water Sample	e ID						
Ambient Condition Blank (AB) Replicate of Soil Sample ID											
WATER PARAMETERS											
TIME	PH		CONDUC	TIVITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 7	TURBIDITY		
			М	ONITORING F	FADINGS	<u> </u>					
			1	0111101111101	HANBY SCREEN	IINC					
TIME	PID READ	NG (ppn	n) CG	G/LEL (%)	(standard/ppm)	VIING					
BG=Background;	BZ=Breath	ing Zone;	BH=Bore	ehole; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)		
			✓ CHE	CK ANALYSE	S REQUESTED						
			BARROW	LAB			ANCHO	RAGE	LAB		
ANIALVOEC			CONTAIN	IFRS	ANALYSES	1	CON	TAINE	RS		
ANALYSES			ATER	SOIL	ANALIOLO		WATER		SOIL		
TPH		1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz		
PCB					SVOC (8270)		1 liter		8 oz		
PESTICIDES					TOTAL METALS		1 liter		8 oz		
HVOC 8010	1	1 x 40 n	ml	4 oz	DISS METALS		1 liter				
VOC-BTEX 8020											
					TSS		250 ml				
					тос		500 ml		4 oz		
					TCLP		2 liters		2 x 8 oz		

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>09/02/93</u> SAMPLE ID: <u>BTR-AB03</u>										
RADAR STATION: B	Barter		WE	ATHER	તેઃ					
SITE/AOC:			_ FEET	FROM	I FIXED PO	INT:	_ MA	GNETIC HEAD	ING:	
FIXED POINT:										
SAMPLE MATRIX:	• •					Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: JM, JE					5 0414DI 5	//A				
TIME SAMPLED: 12									· · · · · · · · · · · · · · · · · · ·	
SAMPLE DESCRIPTI	ON/COMIN	EN13								
SAMPLING METHOD	D: Grab									
QA/QC SAMPLES C	OLLECTED	: 🗆 E	Equipme	ent Blar	nk (EB)	☐ QA/QC EX	tra Vol	umes		
☐ Trip Blank (TB)			Duplicat	e of Wa	ater Sample	e ID				
Ambient Condition	n Blank (A	B) 🗆 F	Replicat	e of So	il Sample I	D				
				WA	TER PARAI	METERS				
TIME	PH		CON	DUCTIV	'ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	TURBIDITY
							<u> </u>		\perp	
				MON	ITORING R	EADINGS				
T0.45	DID DEAD	NNO /		00// 5	(-()	HANBY SCREET	NING			
TIME	PID READ	лис (рр)m)	CG/LE	:L (%)	(standard/ppm)				
BG-Background:	R7—Breath	ing Zone		Rorobo	lo: NID-No		donac	. S-Sample	(11200	atainad\
BG=Background,	DZ-DIGALII	ing zone		-			uspaci	e, S=Sample	(uncoi	italiieu)
			(CHECK	ANALYSES	S REQUESTED		,		
			BARR	OW LA	.B			ANCHO	PRAGE	LAB
ANALYSES	1		CONT	TAINER	S	ANALYSES	1	CON	TAINE	RS
		V	VATER		SOIL			WATER		SOIL
ТРН		1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES		×==				TOTAL METALS		1 liter		8 oz
HVOC 8010										
VOC-BTEX 8020	/				w	TDS		250 ml		
						TSS		250 ml		
			***************************************			тос		500 ml		4 oz
	TCLP 2 liters 2 x 8 oz									

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: 08/17/93	TE: <u>08/17/93</u> SAMPLE ID: <u>BTR-EB01</u>									
RADAR STATION: B	Barter WEATHER: FEET FROM FIXED POINT: MAGNETIC HEADING:									
SITE/AOC:			_ FEET	Γ FROM	FIXED PO	INT:	_ MA	GNETIC HEAD	ING:	
FIXED POINT:										
SAMPLE MATRIX:			Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>ML, JN</u> TIME SAMPLED: <u>15</u>	1, PG		חר	DTU O	CAMPLE	/faat\:				
SAMPLE DESCRIPTION										
SAMPLE DESCRIPTION	ON/COMM	=N13								
SAMPLING METHOD	: Grab									
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)			Duplicat	te of Wa	ater Sample	e ID				
☐ Ambient Conditio	n Blank (Al	3) 🗆 f	Replicat	te of So	il Sample I	D				
				WA ⁻	TER PARAI	METERS				
TIME	PH		CON	DUCTIV	ΊΤΥ	TEMPERATURE	SPE	CIFIC GRAVIT	Υ	TURBIDITY
				MON	ITORING F	FADINGS	1			
					., ., ., .,		UNIC			
TIME	PID READ	ING (pp	om)	CG/LE	EL (%)	HANBY SCREEN (standard/ppm)	MING			
BG=Background;	BZ=Breath	ing Zon	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(unco	ntained)
						S REQUESTED				
				ROW LA				ANCHO	RAGE	LAB
				TAINER		ANIALVOEC	,	CON	TAINE	RS.
ANALYSES	√					ANALYSES	/			SOIL
			WATER		SOIL			WATER		
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB	/					SVOC (8270)	1	1 liter		8 oz
PESTICIDES	1			T		TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	✓ 1 x 40 ml				DISS METALS		1 liter		
VOC-BTEX 8020	1	1				TDS		250 ml		
						TSS		250 ml		
						тос	1	500 ml		4 oz
***************************************						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/17/93</u>				ID: <u>BTR-EB</u>						
	Barter WEATHER: FEET FROM FIXED POINT: MAGNETIC HEADING:									
			FEET FROM	I FIXED PO	INT:	_ MAG	SNETIC HEAD	ING: _		
FIXED POINT:			· · · · · · · · · · · · · · · · · · ·							
SAMPLE MATRIX: [SAMPLERS: ML, PO		☐ Sed	diment (SD)		Surface Water (SW)		Groundwater	(GW)		
TIME SAMPLED: 16			DEPTH O	F SAMPLE	(feet):					
SAMPLE DESCRIPTI										
SAMPLING METHOD): Grab									
QA/QC SAMPLES C	OLLECTED	: 📕 Eq	uipment Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)		☐ Du	plicate of W	ater Sample	1D					
☐ Ambient Condition	n Blank (Al	B) 🗌 Re	plicate of Sc	oil Sample II)					
				TER PARAM						
TIME	PH		CONDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	γ τ	TURBIDITY	
									7.7	
						1				
								<u> </u>		
			1401	UTODING	EADINGS	1				
			MON	IITORING R	T		1	<u>I</u>		
TIME	PID READ	DING (ppm) CG/LF	EL (%)	HANBY SCREEN (standard/ppm)	IING				
	1 12 112 12	(ррііі	, 00,2.	Giandard/pp						
										
BG=Background;	BZ=Breath	ing Zone;	BH=Boreho	ole; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)	
			✓ CHECK	ANALYSES	S REQUESTED					
		E	BARROW LA	λB			ANCHO	RAGE	LAB	
ANALYSES			CONTAINER	RS	ANALYSES	1	CON	TAINE	:RS	
71177121323			TER	SOIL	7117121323		WATER		SOIL	
TPH	1	1 liter	· · · · · · · · · · · · · · · · · · ·	8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
PCB		i iitei		8 02						
	1				SVOC (8270)	1	1 liter		8 oz	
PESTICIDES	1		.		TOTAL METALS	✓	1 liter		8 oz	
HVOC 8010	/	1 x 40 m	11	4 oz	DISS METALS	/	1 liter			
VOC-BTEX 8020	1				TDS	1	250 ml			
	TSS	1	250 ml							
					тос	1	500 ml		4 oz	
					TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/18/93</u>	SAMPLE ID: BTR-EB03									
	arter WEATHER: FEET FROM FIXED POINT: MAGNETIC HEADING:									
					I FIXED PO	DINT:	MA	GNETIC HEA	DING:	
FIXED POINT:						<u> </u>				
SAMPLE MATRIX: SAMPLERS: JM, MI			Sedime	ent (SD)		Surface Water (SW		Groundwate	(GW)	
TIME SAMPLED: 16			DI	FPTH O	E SAMPLE	(feet):				
SAMPLE DESCRIPTION	ON/COMM	IENTS:	0.		OANII EE	(1001).				
SAMPLING METHOD										
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)			Duplica	ite of W	ater Sample	e ID				
☐ Ambient Condition	n Blank (A	.B) 🗆 F	Replica	te of So	oil Sample I	D				
WATER PARAMETERS										<u>.</u>
TIME	TIME PH CONDUCTIVITY						SPE	CIFIC GRAVI	TY	TURBIDITY
	ļ									
				MON	IITORING P	EADINGS				
TIME	PID REAL	DING (pp	om)	CG/LE	EL (%)	HANBY SCREEI (standard/ppm)	NING			
BG=Background; 8	3Z=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			✓	CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	ΛB			ANCH	DRAGE	E LAB
ANALYSES	1		CON	TAINER	ıs	ANALYSES	1	CON	ITAINE	RS
		W	VATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ	1					SVOC (8270)	1	1 liter		8 oz
PESTICIDES	1					TOTAL METALS	>	1 liter		8 oz
HVOC 8010		1 x 40	mi		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	/					TDS		250 ml		
						TSS	.	250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

ATE: 08/18/93 SAMPLE ID: BTR-EB03A ADAR STATION: Barter WEATHER:										
RADAR STATION: B	arter		W	EATHE	ন :					
SITE/AOC:			FE	ET FRO	OM FIXED F	POINT:	MA	GNETIC HEA	DING:	
FIXED POINT:										
SAMPLE MATRIX:						Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: JM										
TIME SAMPLED: 16										
SAMPLE DESCRIPTION	ON/COMM	ENTS: _								
SAMPLING METHOD	: Grab					· · · · · · · · · · · · · · · · · · ·				
QA/QC SAMPLES CO		: E F	auinm	ent Bla	nk (FB)	☐ QA/QC Ex	rtra Vol	umes		
☐ Trip Blank (TB)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					D				
☐ Ambient Condition	n Blank (A	B) 🗆 F	Replica	te of Sc	oil Sample II)				
					TER PARA					
TIME	PH		CON			1	Lope	CITIO ODANI	n/	
TRVIE	Pn		CON	DUCTIV	/I I Y	TEMPERATURE	SPE	CIFIC GRAVIT	I Y	TURBIDITY
	<u> </u>									
				MON	IITORING R	EADINGS				
		****				HANBY SCREEN	JING			, .
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)	*****			

BG=Background; [3Z=Breath	ina Zone	 e: BH=	Boreho	le: NR=No	 Readings: HS=Hea	dspac	r. S=Sample	(uncor	ntained)
								o, o — oapio	(011001	
		<u> </u>				REQUESTED				
			BARF	ROW LA	/B			ANCHO	DRAGE	LAB
ANALYSES	/		CON	TAINER	s	ANALYSES	1	CON	TAINE	RS
		٧	VATER		SOIL			WATER		SOIL
ТРН	/	1 liter			8 oz	VOC (8260)	/	3 x 40 ml		4 oz
РСВ	1					SVOC (8270)	1	1 liter		8 oz
PESTICIDES	1			· · · · · · · · · · · · · · · · · · ·		TOTAL METALS	✓	1 liter		8 oz
HVOC 8010		1 x 40	ml		4 oz	DISS METALS	1	1 liter		
VOC-BTEX 8020	1	1				TDS	1	250 ml		***
						TSS	1	250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>08/20/93</u>	/93 SAMPLE ID: BTR-EB04									
	arter WEATHER: FEET FROM FIXED POINT: MAGNETIC HEADING:									
			_ FEET	r FROM	I FIXED PO	DINT:	_ MA	GNETIC HEAI	DING:	
FIXED POINT:										
SAMPLERS: RO, M	• •	□ s	Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: 18			DE	PTH C	E SAMDI E	(foot):				
SAMPLE DESCRIPTI		IENTS:		rmo	OF SAIVIFEE	(leet).		· · · · · · · · · · · · · · · · · · ·		
OANN EE DEGGNII II	014,001411	.2.110								
SAMPLING METHOD	D: <u>Grab</u>									
QA/QC SAMPLES C	OLLECTED					☐ QA/QC E				
☐ Trip Blank (TB)			uplicat	e of W	ater Sampl	e ID				
☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID										
					TER PARA					
TIME	PH		CON	DUCTI	/ITY	TEMPERATURE	SPE	CIFIC GRAVI	TY .	TURBIDITY
							<u> </u>			
				A. T				·		
				MON	IITORING F	READINGS		·		
		· · · · · · · · · · · · · · · · · · ·	I	······································		HANBY SCREE	NING			
TIME	PID REAL	DING (ppi	m)	CG/LE	EL (%)	(standard/ppm)				
									_	
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)
			/ (CHECK	ANALYSE	S REQUESTED				
			BARR	OW LA	NB			ANCHO	DRAGE	E LAB
ANALYSES	1		CONT	TAINER	ıs	ANALYSES	1	CON	TAINE	RS
		w	ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ	1					SVOC (8270)	/	1 liter		8 oz
PESTICIDES						TOTAL METALS	1	1 liter		8 oz
HVOC 8010	1	1 x 40 i	mi		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	020 🗸					TDS		250 ml		
						TSS		250 ml		
						тос	1	500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCI to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/21/93</u>											
RADAR STATION: B	larter WEATHER: FEET FROM FIXED POINT: MAGNETIC HEADING:										
SITE/AOC:			FEE	T FROM	A FIXED PO	DINT:	MA	GNETIC HEAD	DING:		
FIXED POINT:											
SAMPLE MATRIX:			Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: ML, PC											
TIME SAMPLED: 14											
SAMPLE DESCRIPTION	ON/COMM	IENTS: _									
SAMPLING METHOD	: Grab										
QA/QC SAMPLES CO	DLLECTED): III E	Equipm	nent Bla	nk (EB)	☐ QA/QC E	dra Vol	umes			
☐ Trip Blank (TB)			Duplica	te of W	ater Samol	e ID					
☐ Ambient Condition	n Blank (A	B) 🗆 F	Replica	te of So	oil Samole I	D					
☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID											
THAT											
TIME	PH	*	CON	DUCTIV	VITY	TEMPERATURE	SPE	CIFIC GRAVI	Υ	TURBIDITY	
	1			***************************************		,					
			T	MON	ITORING F	IEADINGS					
TIME	PID REAL	DING (pp	om)	CG/LE	EL (%)	HANBY SCREE! (standard/ppm)	NING				
				, , , , , , , , , , , , , , , , , , ,							
BG=Background; 8	BZ=Breath	ing Zone	e; BH=	Boreho	ie; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(unco	ntained)	
			1	CHECK	ANALYSE	S REQUESTED					
			BARF	ROW LA	AB			ANCHO	ORAGE	LAB	
ANALYSES			CON.	TAINER	us	ANALYSES			TAINE		
ANALIOLO					T	ANALTSES	1	001	IAINE	no I	
			VATER		SOIL			WATER		SOIL	
TPH	1	1 liter			8 oz	VOC (8260)	1	3 x 40 mi		4 oz	
PCB	/					SVOC (8270)	1	1 liter		8 oz	
PESTICIDES	•			Υ		TOTAL METALS	1	1 liter		8 oz	
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				TDS		250 ml				
						TSS		250 ml			
						тос	1	500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/01/93</u>										
RADAR STATION: B	arter WEATHER: MAGNETIC HEADING:									
					I FIXED PC	DINT:	_ MA	GNETIC HEAD	DING:	
FIXED POINT:										
SAMPLE MATRIX: [SAMPLERS: JM, JE	, ,	□s	Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: 18			DE	PTH O	E SAMPLE	(feet):				
SAMPLE DESCRIPTION										
	.,,									
SAMPLING METHOD	: Grab									
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)			Ouplica	te of W	ater Sample	e ID				
Ambient Conditio	n Blank (A	B) 🗆 R	Replica	te of Sc	il Sample I	D				
WATER PARAMETERS										
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	ry -	TURBIDITY
									_	
				MON	IITORING R	EADINGS				
	DID DE 45	NING (00 " "		HANBY SCREEN	NING			
TIME	PID READ	лис (рр	m)	CG/LE	:L (%)	(standard/ppm)				
									+	
BG=Background:	BZ=Breath	ina Zone	 :: BH=	Boreho	le: NR=No	Readings; HS=Hea	adspac	! e: S=Sample	(uncor	ntained)
						S REQUESTED	1		`	
						REQUESTED		ANCHO	ND A CE	LAD
			BAH	ROW LA				ANCH	JNAGE	LAD
ANALYSES	/		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS
		W	/ATER		SOIL			WATER		SOIL
ТРН	1	1 liter			8 oz	VOC (8260)		3 x 40 ml		4 oz
РСВ	1					SVOC (8270)		1 liter		8 oz
PESTICIDES			•	,		TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1					TDS		250 ml		
	TSS							250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 09/02/93 SAMPLE ID: BTR-EB07											
	Sarter WEATHER:										
SITE/AOC:			_ FEE	T FROM	1 FIXED PO	INT:	_ MA	GNETIC HEAD	ING:		
FIXED POINT:											
SAMPLE MATRIX:				nt (SD)		Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: JM, PC	G, RT, ML						***				
TIME SAMPLED: 14											
SAMPLE DESCRIPTI	ON/COMM	ENTS: _							···.		
SAMPLING METHOD): Grab										
QA/QC SAMPLES CO	OLLECTED	: II E	Equipm	ent Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes			
☐ Trip Blank (TB)) ID					
☐ Ambient Conditio	n Blank (A	В) 🗆 ғ	Replica	te of Sc	oil Sample II	D					
		333			TER PARA!						
TIME	PH		CON	DUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	TURBIDITY	
				MON	IITORING R	EADINGS					
						HANBY SCREEN	VING				
TIME	PID READ	DING (pp	m)	CG/LE	EL (%)	(standard/ppm)					
				-							
								<u> </u>	<u>l</u>		
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspace	e; S=Sample	(uncor	ntained)	
			1	CHECK	ANALYSES	S REQUESTED					
			BARE	ROW LA	\B			ANCHO	RAGE	LAB	
ANALYSES	1		CON	TAINER	S	ANALYSES	1	CON	TAINE	RS	
		٧	VATER		SOIL			WATER		SOIL	
ТРН	1	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
РСВ						SVOC (8270)		1 liter		8 oz	
PESTICIDES						TOTAL METALS		1 liter		8 oz	
HVOC 8010	✓ 1 x 40 ml 4 oz					DISS METALS		1 liter			
VOC-BTEX 8020	0 /					TDS		250 ml			
						TSS		250 ml			
						тос		500 ml		4 oz	
						TCLP		2 liters		2 x 8 oz	
	TPH /										

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO_3 to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/03/93</u>	SAMPLE ID: BTR-EB08									
RADAR STATION: B	reter WEATHER: FEET FROM FIXED POINT: MAGNETIC HEADING:									
SITE/AOC:			_ FEET	r from	FIXED PO	INT:	_ MA	GNETIC HEAD	ING:	
FIXED POINT:										
SAMPLE MATRIX:				nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: JM, PC	3, RT, ML			-DT: - O	5 0 4 4 5 1 5	// I				
TIME SAMPLED: 14										
SAMPLE DESCRIPTION	ON/COMM	ENIS: _								
SAMPLING METHOD	: Grab									
QA/QC SAMPLES CO	OLLECTED									
☐ Trip Blank (TB)			Duplicat	te of Wa	ater Sample) ID				
☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID										
WATER PARAMETERS										
TIME PH CONDUCTIVITY						TEMPERATURE	SPE	CIFIC GRAVIT	Υ 1	TURBIDITY
								-		
			!	MON	ITORING R	FADINGS				
			Ī	WOI		HANBY SCREEN	JING			
TIME	PID READ	ING (pp	om)	CG/LE	EL (%)	(standard/ppm)	11110			
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspac	e; S=Sample	(uncor	ntained)
			1	CHECK	ANALYSES	REQUESTED				
		:		ROW LA				ANCHO	RAGE	LAB
						41111050			TAINE	
ANALYSES				TAINER		ANALYSES	/			ı
			VATER		SOIL			WATER		SOIL
ТРН	/	1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB						SVOC (8270)		1 liter		8 oz
PESTICIDES				1		TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1			<u></u>		TDS		250 ml		
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz
						TPH	1			

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/16/93</u>	SAMPLE ID: BTR-TB01 STATION: Barter WEATHER:									
RADAR STATION: B	arter WEATHER:									
SITE/AOC: Contamir	nted Ditch,	SD08	FEET FF	ROM FIXED I	POINT:	MA	AGNETIC HEA	DING:	-	
FIXED POINT:										
SAMPLE MATRIX:			ediment (SD)) 🗆	Surface Water (SW)		Groundwater	(GW)		
SAMPLERS: RT, JM										
TIME SAMPLED: 15										
SAMPLE DESCRIPTION	ON/COMM	ENTS: <u>Tr</u>	ip blank co	llected for SE	008 samples on 08/	16/93				
SAMPLING METHOD). Grah								***************************************	
QA/QC SAMPLES CO		·	ruinment RI	ank (ER)	□ 04/0C E ₂	tra Vol	ıımae		11119	
					e ID					
☐ Ambient Conditio										
				ATER PARA						
TIME	DLI				1	Tope	OIFIO ODAVIT	. T	FURRIDITY	
TIME	PH		CONDUCT	IVIIY	TEMPERATURE	SPE	CIFIC GRAVIT	* -	TURBIDITY	
		I		NITODING 5		1				
T T			MO	NITORING F	READINGS		1			
TIME		NING (nnn	a) CC//	F1 (0()	HANBY SCREET	NING				
TIME	PID READ	лис (ррп	n) CG/I	LEL (%)	(standard/ppm)			+		
BG=Background;	BZ=Breath	ing Zone;	BH=Boreh	ole: NR=No	Readings; HS=Hea	adspac	e: S=Sample	(uncoi	ntained)	
	<u>I</u>		✓ CHEC	K ANALYSE:	S REQUESTED					
			BARROW L	.AB			ANCHO	RAGE	ELAB	
ANALYSES			CONTAINE	RS	ANALYSES	1	CON	TAINE	RS	
		W	ATER	SOIL			WATER		SOIL	
ТРН		1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz	
PCB					SVOC (8270)		1 liter		8 oz	
PESTICIDES					TOTAL METALS		1 liter		8 oz	
HVOC 8010	1	1 x 40 n	nl	4 oz	DISS METALS		1 liter			
VOC-BTEX 8020	1				TDS		250 ml			
					TSS		250 ml			
					TOC		500 ml	· · · · · · · · · · · · · · · · · · ·	4 oz	
					TCLP		2 liters		2 x 8 oz	

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE. 00/17/93	ATE: 08/17/93 SAMPLE ID: BTR-TB02 ADAR STATION: Barter WEATHER:									
RADAR STATION: B	arter		WI	EATHER	₹:					
SITE/AOC: Contamir	nated Ditch	SD08	FE	ET FRO	M FIXED P	OINT:	MA	AGNETIC HEA	DING:	
FIXED POINT:										
SAMPLE MATRIX:						Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: RT, RC TIME SAMPLED: 10), ML			-DTI - O	E CAMPI E	(f = a+) :				
SAMPLE DESCRIPTION	ON/COMM	ENTS:	rip bla	ink colle	ected for SL	008 samples on 08/	17/93			
SAMPLING METHOD): Grab									
QA/QC SAMPLES CO	OLLECTED	: ПЕ	auipm	ent Blar	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
■ Trip Blank (TB)						ID				
	n Blank (Al	B) 🗆 B	eplicat	te of So	il Sample II)				
	☐ Ambient Condition Blank (AB) ☐ Replicate of Soil Sample ID									
TIME	PH		CON	DUCTIV		TEMPERATURE	SPE	CIFIC GRAVIT	γ 1	TURBIDITY
THVIL				500111		1200 2000	-			
				MON	ITORING R	EADINGS		r	····	
TIME	PID READ	DING (ppr	m)	CG/LE	EL (%)	HANBY SCREET (standard/ppm)	NING			
BG=Background;	BZ=Breath	ing Zone	; BH=	Boreho	le; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
			/	CHECK	ANALYSES	S REQUESTED				
			BARF	ROW LA	В			ANCHO	RAGE	LAB
ANALYSES	1		CON	TAINER	ıs	ANALYSES	1	CON	TAINE	RS
AINALTSES		w	ATER		SOIL	AIVALIOLO		WATER		SOIL
TPH		1 liter			8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ						SVOC (8270)		1 liter		8 oz
PESTICIDES	ļ					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ı	ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020 J TDS 250 ml										
						TSS		250 ml		
						тос		500 ml		4 oz
						TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: 08/18/93 SAMPLE ID: BTR-TB03										
RADAR STATION: B	Barter WEATHER: FEET FROM FIXED POINT: MAGNETIC HEADING:									
SITE/AOC:			FEET	FROM F	IXED POIN	IT:	MAGN	ETIC HEADIN	G:	
FIXED POINT:										
SAMPLE MATRIX:	Soil (S)	□s	Sedime	nt (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: JM				- DTU O	- 0 4 1 4 1 1 1	/f N ·				
TIME SAMPLED: 10										
SAMPLE DESCRIPTION	OIN/COIVIIVII	EN13								
SAMPLING METHOD	: Grab									
QA/QC SAMPLES CO	OLLECTED	: 🗆 E	quipm	ent Blar	nk (EB)	☐ QA/QC Ex	tra Volu	umes		
Trip Blank (TB)			uplica	te of Wa	ater Sample	• ID				
Ambient Conditio	n Blank (Al	3) 🗆 F	Replica	te of So	il Sample II)				
WATER PARAMETERS										
TIME	PH		CON	DUCTIV	TITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ <u>τ</u>	URBIDITY
										·
				MON	ITORING R	EADINGS				
						HANBY SCREEN	IING			
TIME	PID READ	ING (pp	m)	CG/LE	L (%)	(standard/ppm)				
BG=Background;	BZ=Breath	ing Zone	e; BH=	Boreho	le; NR=No	Readings; HS=Hea	dspace	e; S=Sample	(uncor	ntained)
			/	CHECK	ANALYSES	REQUESTED				
			BAR	ROW LA	.B			ANCHO	RAGE	LAB
ANALYSES			CON	TAINER	 S	ANALYSES	1	CON	TAINE	RS
ANALIGEO		\^	VATER		SOIL	AIVALIOLO		WATER		SOIL
TPH		1 liter	VAILI		8 oz	VOC (8260)	/	3 x 40 mi		4 oz
PCB		i illei			8 02	SVOC (8270)	J	1 liter		8 oz
PESTICIDES					•	TOTAL METALS		1 liter		8 oz
HVOC 8010		1 × 40	ml		4.07	DISS METALS		1 liter		
VOC-BTEX 8020	-	1 x 40 ml 4 oz				TDS		250 ml		
100 312, 0020						TSS		250 ml		
								4 oz		
						TCLP		2 liters		2 x 8 oz
						IOLF		Z IIIEIS		2 3 6 02

Preservation:

HVOC and VOC: HCl to pH <2; metals: $\mathrm{HNO_3}$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

	•	S							
RADAR STATION: B	arter	W	EATHER	ጓ:				·····	•
SITE/AOC:				1 FIXED PO	INT:	_ MA	GNETIC HEAD	DING: _	
FIXED POINT:									
SAMPLERS: ML, RT	, ,	☐ Sedime	ent (SD)		Surface Water (SW)		Groundwater	(GW)	
TIME SAMPLED: 10		D	EPTH O	F SAMPLE	(feet):				
SAMPLE DESCRIPTION									
SAMPLING METHOD	: Grab								
QA/QC SAMPLES CO	DLLECTED	: 🔲 Equipn	nent Bla	nk (EB)	☐ QA/QC Ex	tra Vol	umes		
Trip Blank (TB)		☐ Duplica	ate of W	ater Sample	D	***			
☐ Ambient Condition	n Blank (Al	B) 🗌 Replica	ate of Sc	oil Sample II	o				
				TER PARA					
TIME	PH	CON	IDUCTIV	/ITY	TEMPERATURE	SPE	CIFIC GRAVIT	Υ -	TURBIDITY
	 								
						+			
						<u></u>			
			MON	IITORING R	EADINGS		T		
TIME	PID READ	DING (ppm)	CG/LE	EL (%)	HANBY SCREEN (standard/ppm)	NING			
	-								
			 			-			
			<u></u>					L	
BG=Background; I	BZ=Breath	ing Zone; BH=	=Boreho	ole; NR=No	Readings; HS=Hea	adspac	e; S=Sample	(uncor	ntained)
		·	CHECK	ANALYSES	S REQUESTED				
		BAR	ROW LA	AB			ANCHO	DRAGE	LAB
ANALYSES	1	CON	TAINER	 RS	ANALYSES	1	CON	TAINE	RS
		WATER	?	SOIL			WATER		SOIL
ТРН		1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
РСВ					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 ml		4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

DATE: <u>08/21/93</u>			SAMPLE	ID: BTR-TE	305				
RADAR STATION: B									
SITE/AOC:			_ FEET FRO	M FIXED PC	NT:	_ MAG	GNETIC HEAD	ING:	
FIXED POINT:							····		
SAMPLE MATRIX:			ediment (SD)	Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: ML, PC			DEDTU	OF CAMPLE	(foot):	-			
TIME SAMPLED: <u>16</u> SAMPLE DESCRIPTI									
OAWII LE BLOOMII II	OT 4/ O OTVITVI		124						
SAMPLING METHOD): Grab								
QA/QC SAMPLES CO	OLLECTED	: 🗆 E	quipment Bl	ank (EB)	☐ QA/QC EX	tra Vol	umes		
					e ID				
☐ Ambient Conditio	n Blank (A	B) 🗌 R	eplicate of S	Soil Sample I	D				
			w	ATER PARA	METERS				
TIME	PH		CONDUCT	IVITY	TEMPERATURE	SPE	CIFIC GRAVIT	Y -	TURBIDITY
						<u> </u>			
		,	МО	NITORING F	READINGS				
TIME	PID READ	ING (nor	m) CG//	_EL (%)	HANBY SCREEN (standard/ppm)	NING			
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								_	
BG=Background;	BZ=Breath	ing Zone	; BH=Boreh	ole; NR=No	Readings; HS=Hea	ıdspac	e; S=Sample (uncor	ntained)
			✓ CHEC	K ANALYSE	S REQUESTED				
			BARROW L	.AB			ANCHO	RAGE	LAB
ANALYSES			CONTAINE	RS	ANALYSES	1	CON	ΓAINE	RS
		w	ATER	SOIL			WATER		SOIL
TPH		1 liter		8 oz	VOC (8260)	1	3 x 40 ml		4 oz
PCB					SVOC (8270)		1 liter		8 oz
PESTICIDES					TOTAL METALS		1 liter		8 oz
HVOC 8010	1	1 x 40 r	ml	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020	1				TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
			·····		TCLP		2 liters		2 x 8 oz

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO₃ to pH <2; Ice all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

Radar Station Codes:

DATE: <u>09/03/93</u>			_SAMPLE I	D: <u>BTR-ID\</u>	V-01				
RADAR STATION: B	arter		WEATHER	₹:					
SITE/AOC:			FEET FROM	FIXED PO	INT:	_ MAC	ENETIC HEAD	NG: _	
FIXED POINT:									
SAMPLE MATRIX:] Soil (S)	☐ Sed	diment (SD)		Surface Water (SW)		Groundwater	(GW)	
SAMPLERS: <u>JM, PC</u>	3								
TIME SAMPLED: 13									
SAMPLE DESCRIPTION	ON/COMMI	=ŅTS: <u>INV</u>	estigation de	enved waste	9.				
SAMPLING METHOD): Grab								
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BG=Background;	BZ=Breath	ing zone;	BH=Boreno	ile, INN=NO	Readings; HS=Hea	auspac	s, o=oample	unoon	itali iou)
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ANALIGES			ATER	SOIL			WATER		SOIL
		I	-		VOC (8260)	1	3 x 40 ml		4 oz
TPH		1 liter		8 oz					8 oz
PCB					SVOC (8270)	1	1 liter		<u> </u>
PESTICIDES					TOTAL METALS	1	1 liter		8 oz
HVOC 8010		1 x 40 m	nl	4 oz	DISS METALS		1 liter		
VOC-BTEX 8020					TDS		250 ml		
					TSS		250 ml		
					тос		500 ml		4 oz
					TCLP		2 liters		2 x 8 oz
l		<u> </u>		<u> </u>	<u> </u>				

Preservation:

HVOC and VOC: HCl to pH <2; metals: HNO $_3$ to pH <2; lce all samples to 4°C

Sample ID Format:

Radar Station - site identifier - matrix + sample number - depth (feet)

(i.e., BUL-ST05-SW07, BTR-EB04, WRT-SS08-S09-5.0)

APPENDIX E CHAIN-OF-CUSTODY FORMS

CHAIN OF CUSTODY RECORD



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CHAIN OF CUSTODY RECORD

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CHAIN OF CUSTODY RECORD

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CHAIN OF CUSTODY RECORD

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APPENDIX F

ANALYTICAL DATA

- 1. SUMMARY TABLES OF ANALYTICAL DATA (presented in Sections 3.0 and 4.0)
- 2. CROSS-REFERENCE TABLE FOR SAMPLE IDENTIFICATION
- 3. ANALYTICAL DATA (for each site CT&E Data is presented first followed by F&B Data)

1. SUMMARY TABLES OF ANALYTICAL DATA (presented in Sections 3.0 and 4.0)

2. CROSS-REFERENCE TABLE FOR SAMPLE IDENTIFICATION

CROSS-REFERENCE SAMPLE IDENTIFICATION

RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND		FIELD BATCH IDENTIFICATION	SATCH	LABOF	LABORATORY DENTIFICATION	LABORA	LABORATORY BATCH IDENTIFICATION	
TABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE	CT&E	F&B	СТ&Е	F&B	CT&E	F&B	SAMPLE
			0	Old Landfill (LF01)	(LF01)				
BTR-LF01-S01	BTR-LF01-S01	LF01	491	392	93.4303-2	322	93.4303	#6-08/24/93 #6-08/23/93	Soil
BTR-LF01-S01SD	BTR-LF01-S01	LF01	491	392	93.4303-4	322msd	93.4303	#6-08/24/93 #6-08/23/93	Soil Spike Duplicate
BTR-LF01-S01S	BTR-LF01-S01	LF01	491	392	93.4303-3	322ms	93.4303	#6-08/24/93 #6-08/23/93	Soil Spike
BTR-LF01-S01DP	BTR-LF01-S01	LF01	491		93.4303-9		93.4303		Soil Duplicate
BTR-LF01-SD01	BTR-LF01-SD01	LF01		395		1344		#6-08/31/93 #1&2-08/31/93	Sediment
BTR-LF01-SD02	BTR-LF01-SD02	LF01		395		1342		#6-08/31/93 #1&2-08/31/93	Sediment
BTR-LF01-SD03	BTR-LF01-SD03	LF01	497	395	93.4286-5	1344	93.4286	#6-08/31/93 #1&2-08/31/93	Sediment
BTR-LF01-SW01	BTR-LF01-SW01	LF01		396		1372 1374		#5-08/31/93 #3&4-08/31/93	Surface Water
BTR-LF01-SW02	BTR-LF01-SW02	LF01		396		1368 1370		#5-08/31/93 #3&4-08/31/93	Surface Water
BTR-LF01-SW03	BTR-LF01-SW03	LF01	499	396	93.4285-2	1362 1364	93.4285	#5-08/31/93 #3&4-08/31/93	Surface Water
BTR-LF01-SW04	BTR-LF01-SW04	LF01	499	396	93.4285-1	1348 1354	93.4285	#5-08/31/93 #3&4-08/31/93	Surface Water

CT&E - Commercial Testing and Engineering Co. F&B - Friedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

BI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND		FIELD BATCH IDENTIFICATION	SATCH	LABOF	LABORATORY DENTIFICATION	LABORA	LABORATORY BATCH IDENTIFICATION	i i
TABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	CT&E	F&B	CT&E	F&B	CT&E	F&B	SAMPLE
			Old Lar	ndfill (LF01)	Old Landfill (LF01) (Continued)				
BTR-LF01-SW04DP	BTR-LF01-SW04	LF01		396		1356dup		#5-08/31/93 #3&4-8/31/93	Surface Water Duplicate
BTR-LF01-SW04S	BTR-LF01-SW04	LF01		396		1358ms		#5-08/31/93 #3&4-08/31/93	Surface Water Spike
BTR-LF01-2SW01	BTR-LF01-2SW01	LF01		474		1663		#5-09/06/93	Surface Water
BTR-LF01-2SW02	BTR-LF01-2SW02	LF01		474		1664		£6/90/60-5#	Surface Water
BTR-LF01-2SW03	BTR-LF01-2SW03	LF01		474		1665		£6/90/60-5#	Surface Water
BTR-LF01-2SW04	BTR-LF01-2SW04	LF01		474		1666		#5-09/06/93	Surface Water

CT&E - Commercial Testing and Engineering Co. Fiedman and Bruya, Inc.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND		FIELD BATCH IDENTIFICATIO	FIELD BATCH DENTIFICATION	LABOF	LABORATORY IDENTIFICATION	LABORA	ABORATORY BATCH IDENTIFICATION	
	DATA VALIDATION SAMPLE IDENTIFICATION	SITE	CT&E	F&B	CT&E	F&B	CT&E	F&B	SAMPLE DESCRIPTION
			POL	L Catchment (LF03)	nt (LF03)				
	BTR-AOC08-S01	LF03	498	394	93.4302-1	1290	93.4302	#6-08/31/93 #1&2-08/31/93	Soil
	BTR-AOC08-S01	LF03	498		93.4302-2				Soil
	BTR-AOC08-S01	LF03	498		93.4302-3				Soil
BTR-LF03-S01-0.75	BTR-LF03-S01	LF03	399		93.4216-7		93.4216		Soil
BTR-LF03-S02-0.75	BTR-LF03-S02	LF03	399		93.4216-8		93.4216		Soil
BTR-LF03-S03-0.75	BTR-LF03-S03	LF03	399		93.4216-9		93.4216		Soil
	BTR-LF03-SD01	LF03	378 399		93.4216-3 93.4216-11		93.4212 93.4216		Sediment
	BTR-LF03-SD02	LF03	398		93.4219-13		93.4219		Sediment
	BTR-LF03-SD03	LF03	397		93.4215-5		93.4215		Sediment
	BTR-LF03-SD04	LF03	397		93,4215-1		93.4215		Sediment
	BTR-LF03-SD04	LF03	397		93.4215-3		93.4215		Sediment Duplicate
	BTR-LF03-SD04	LF03	397		93.4215-2		93.4215		Sediment Spike
	BTR-LF03-SD05	LF03	397		93.4215-4		93.4215		Sediment
	BTR-LF03-SD06	LF03	398		93.4219-11		93.4219		Sediment
	BTR-LF03-SD07	LF03	383 398		93.4213-3 93.4219-10		93.4213 93.4219		Sediment

CT&E - Commercial Testing and Engineering Co. F&B - Friedman and Bruya, Inc.

				<u></u>					
RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND		FIELD BATCH IDENTIFICATION	ATCH	LABORATORY	LABORATORY DENTIFICATION	LABORA	LABORATORY BATCH IDENTIFICATION	
TABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE	CT&E	F&B	CT&E	F&B	СТ&Е	F&B	SAMPLE DESCRIPTION
			POL Catch	ment (LF0	POL Catchment (LF03) (Continued)				
BTR-LF03-SD08	BTR-LF03-SD08	LF03	398		93.4219-12		93.4219		Field Replicate Sediment
BTR-LF03-2SD09	BTR-LF03-2SD09	LF03		475		1678		#5-09/05/93 #3&4-09/06/93	Sediment
BTR-LF03-2SD10	BTR-LF03-2SD10	LF03		475		1680		#5-09/05/93 #3&4-09/06/93	Sediment
BTR-LF03-SW01	BTR-LF03-SW01	LF03	378 399		93.4212-4 93.4216-6		93.4212 93.4216		Surface Water
BTR-LF03-SW02	BTR-LF03-SW02	LF03	398		93.4219-8		93.4219		Surface Water
BTR-LF03-SW03	BTR-LF03-SW03	LF03	383 398		93.4213-2 93.4219-9		93.4213 93.4219		Surface Water

CT&E - Commercial Testing and Engineering Co. Friedman and Bruya, Inc.

1	1		T	T		Τ						I	
L	SAMPLE		Soil	Soil	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Surface Water	Surface Water	Surface Water
LABORATORY BATCH IDENTIFICATION	F&B		#5-08/24/93 #6-08/23/93 #3&4-08/24/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-09/05/93 #1&2-09/06/93	#6-09/05/93 #1&2-09/06/93	#5-08/31/93 #3&4-08/31/93	#5-08/31/93 #3&4-08/31/93	#5-09/06/93	#5-09/06/93	#5-09/06/93 #1&2-09/07/93
LABORA' IDENT	СТ&Е				93.4286	93.4286	93.4616	93.4616	93.4286	93.4286			93.4616
LABORATORY IDENTIFICATION	F&B		326	1334	1336	1338	1742	1744	1324 1326	1328 1330	1669	1670	1747 1748
LABOR	CT&E	II (LF04)			93.4286-3	93.4286-4	93.4616-15	96.4616-16	93.4286-1	93.4286-2			93.4616-14
FIELD BATCH DENTIFICATION	F&B	Current Landfill (LF04)	392	395	395	395	478	478	395	395	474	474	478
FIELD	CT&E	ರ			497	497	477	477	497	497			477
	SITE IDENTIFICATION		LF04	LF04	LF04	LF04	LF04	LF04	LF04	LF04	LF04	LF04	LF04
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-LF04-S01	BTR-LF04-S02	BTR-LF04-SD01	BTR-LF04-SD02	BTR-LF04-2SD03	BTR-LF04-2SD04	BTR-LF04-SW01	BTR-LF04-SW02	BTR-LF04-2SW01	BTR-LF04-2SW02	BTR-LF04-2SW03
RI/FS TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-LF04-S01	BTR-LF04-S02	BTR-LF04-SD01	BTR-LF04-SD02	BTR-LF04-2SD03	BTR-LF04-2SD04	BTR-LF04-SW01	BTR-LF04-SW02	BTR-LF04-2SW01	BTR-LF04-2SW02	BTR-LF04-2SW03

CT&E - Commercial Testing and Engineering Co. F&B - Friedman and Bruya, Inc.

[RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND		FIELD BATCH IDENTIFICATION	ATCH	LABOR	LABORATORY DENTIFICATION	LABORA IDENT	ABORATORY BATCH IDENTIFICATION	L
	TABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE	CT&E	F&B	CT&E	F&B	CT&E	F&B	SAMPLE
<u> </u>				Conta	Contaminated Ditch (SD08)	ch (SD08)				
	BTR-SD08-S01-3	BTR-SD08-S01	SD08	407		93.4199-9		93.4199		Soil
<u> </u>	BTR-SD08-S02-3	BTR-SD08-S02	SD08	408		93.4203-7		93.4203		Soil
	BTR-SD08-S03-3.5	BTR-SD08-S03	SD08	407		93.4199-10		93.4199		Soil
	BTR-SD08-S04-2.5	BTR-SD08-S04	SD08	407		93.4199-12		93.4199		Soil
	BTR-SD08-S05-3	BTR-SD08-S05	SD08	407		93.4199-11		93.4199		Soil
	BTR-SD08-S06-2	BTR-SD08-S06	SD08	399		93.4216-2		93.4216		Soil
	BTR-SD08-S07-3	BTR-SD08-S07	SD08	399		93.4216-1		93.4216		Soil
	BTR-SD08-S10-3	BTR-SD08-S10	SD08	407		93.4199-8		93.4199		Field Replicate Soil
	BTR-SD08-2S11-3.5	BTR-SD08-2S11	SD08		478		1730		#6-09/05/93 #1&2-09/06/93	Soil
I	BTR-SD08-2S12-4.5	BTR-SD08-2S12	80QS		478		1732		#6-09/05/93 #1&2-09/06/93	Soil
	BTR-SD08-2S13-3.5	BTR-SD08-2S13-4	SD08		478		1734		#6-09/05/93 #1&2-09/06/93	Soil
	BTR-SD08-2S14-3.5	BTR-SD08-2S14-4	800S		478		1736		#6-09/05/93 #1&2-09/06/93	Field Replicate Soil
	BTR-SD08-2S15-4	BTR-SD08-2S15-5	SD08		478		1738		#6-09/05/93 #1&2-09/06/93	Soil
	BTR-SD08-2S16-1	BTR-SD08-2S16-1	SD08		478		1740		#6-09/05/93 #1&2-09/06/93	Soil

CT&E - Commercial Testing and Engineering Co. Friedman and Bruya, Inc.

	FIELD CHAIN-OF- CUSTODY AND	L	FIELD BATCH IDENTIFICATION	SATCH	LABORATORY IDENTIFICATION	ATORY CATION	LABORAT	ABORATORY BATCH IDENTIFICATION	O I I I I I
I ABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SILE	СТ&Е	F&B	CT&E	F&B	СТ&Е	F&B	DESCRIPTION
)	Sontaminate	ed Ditch (SE	Contaminated Ditch (SD08) (Continued)	1)			
BTR-SD08-SD01	BTR-SD08-SD01	SD08	406 411		93.4178-3 93.4198-8		93.4178 93.4198		Soil
BTR-SD08-SD02	BTR-SD08-SD02	SD08	411		93.4198-9		93.4198		Soil
BTR-SD08-SD03	BTR-SD08-SD03	SD08	411		93.4198-10		93.4198		Soil
BTR-SD08-SD04	BTR-SD08-SD04	SD08	411		93.4198-11		93.4198		Soil
BTR-SD08-SD05	BTR-SD08-SD05	SD08	405 411		93.4173-6 93.4198-12		93.4173 93.4198		Sediment
BTR-SD08-SD05DP	BTR-SD08-SD05	SD08	405		93.4173-7		93.4173		Sediment Duplicate
BTR-SD08-SD05S	BTR-SD08-SD05	SD08	405		93.4173-8		93.4173		Sediment Spike
BTR-SD08-SD05SD	BTR-SD08-SD05	SD08	405		93.4173-11		93.4173		Sediment Spike Duplicate
BTR-SD08-SD09	BTR-SD08-SD09	SD08	406 411		93.4178-4 93.4198-13		93.4178 93.4198		Field Replicate Sediment
BTR-SD08-SW01	BTR-SD08-SW01	SD08	410 406		93.4197-1 93.4178-2		93.4197 93.4178		Surface Water
BTR-SD08-SW02	BTR-SD08-SW02	SD08	410		93.4197-2		93.4197		Surface Water
BTR-SD08-SW03	BTR-SD08-SW03	SD08	410		93.4197-3		93.4197		Surface Water
BTR-SD08-SW04	BTR-SD08-SW04	SD08	410 377		93.4197-4 93.4175-1		93.4197 93.4175		Surface Water

CT&E - Commercial Testing and Engineering Co. F&B - Friedman and Bruya, Inc.

	FIELD CHAIN-OF-		FIELD BATCH	затсн	LABOR	LABORATORY	LABORA' IDENT	ABORATORY BATCH IDENTIFICATION	
RI/FS TEXT AND	CUSTODY AND		IDENTIFICATION	CATION	IDENTIF	DENTIFICATION			1
TABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE	CT&E	F&B	СТ&Е	F&B	CT&E	F.&B	SAMPLE DESCRIPTION
			Contaminate	ed Ditch (SE	Contaminated Ditch (SD08) (Continued)	a)			
BTR-SD08-SW08	BTR-SD08-SW08	SD08	405 410		93.4173-1 93.4197-5		93.4173 93.4197		Field Duplicate Surface Water
BTR-SD08-SW08DP	BTR-SD08-SW08	SD08	405		93.4173-4		93.4173		Surface Water Duplicate
BTR-SD08-SW08S	BTR-SD08-SW08	SD08	405		93.4173-2 93.4173-5		93.4173		Surface Water Spike
BTR-SD08-SW08SD	BTR-SD08-SW08	SD08	405		93.4173-3		93.4173		Surface Water Spike Duplicate

CT&E - Commercial Testing and Engineering Co. Fxiedman and Bruya, Inc.

	SAMPLE DESCRIPTION		Soil	Soil Duplicate	Soil	Soil	Soil Duplicate	Soil Spike	Soil Spike Duplicate
LABORATORY BATCH IDENTIFICATION	F&B		#6-08/23/93 #1&2-08/24/93	#6-08/23/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93
LABORA' IDENT	CT&E		93.4305						
LABORATORY DENTIFICATION	F&B		416	416dup	412	414	413dup 414dup	414ms	414msd
LABOF	CT&E	mp (LF12)	93.4305-10						
FIELD BATCH	F&B	Old Runway Dump (LF12)	389	389	389	389	414	414	414
FIELD	CT&E	위O	492						
	SITE IDENTIFICATION	-	LF12	LF12	LF12	LF12	LF12	LF12	LF12
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-LF12-S01	BTR-LF12-S01	BTR-LF12-S02	BTR-LF12-S03	BTR-LF12-S03	BTR-LF12-S03	BTR-LF12-S03
RI/FS TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-LF12-S01	BTR-LF12-S01DP	BTR-LF12-S02	BTR-LF12-S03	BTR-LF12-S03DP	BTR-LF12-S03S	BTR-LF12-S03SD

CT&E - Commercial Testing and Engineering Co. FR - Friedman and Bruya, Inc.

RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND	THO	FIELD BATCH IDENTIFICATION	SATCH	LABOF	LABORATORY IDENTIFICATION	LABORA	ABORATORY BATCH IDENTIFICATION	шаууу
IDENTIFICATION	SAMPLE	IDENTIFICATION	CT&E	F&B	СТ&Е	ਜ ል ወ	CT&E	F&B	DESCRIPTION
			Неа	Heated Storage (SS13)	e (SS13)				
BTR-SS13-S01	BTR-SS13-S01	SS13	399		93.4216-3		93.4216		Soil
BTR-SS13-S02	BTR-SS13-S02	SS13	399 378		93.4216-10 93.4212-5		93.4216 93.4212		Soil
BTR-SS13-S02SD	BTR-SS13-S02	SS13	398		93.4219-3		93.4219		Soil Spike Duplicate
BTR-SS13-S03	BTR-SS13-S03	SS13	398		93.4219-5		93.4219		Soil
BTR-SS13-S04	BTR-SS13-S04	SS13	398		93.4219-6		93.4219		Soil
BTR-SS13-2S05-1	BTR-SS13-2S05	SS13	477	478	93.4616-10	1724	93.4616	#6-09/05/93 #1&2-09/06/93	Soil
BTR-SS13-2S06-1	BTR-SS13-2S06	SS13	477	478	93.4616-12	1726	93.4616	#6-09/05/93 #1&2-09/06/93	Soil
BTR-SS13-2S07-1	BTR-SS13-2S07	SS13	477	478	93.4616-11	1728	93.4616	#6-09/05/93 #1&2-09/06/93	Soil
BTR-SS13-SD01	BTR-SS13-SD01	SS13	399 378		93.4216-5 93.4212-2		93.4216 93.4212		Sediment
BTR-SS13-SD02	BTR-SS13-SD02	SS13	398		93.4219-1		93.4219		Sediment
BTR-SS13-SD02S	BTR-SS13-SD02S	SS13	398		93.4219-2		93.4219		Sediment Spike
BTR-SS13-SD03	BTR-SS13-SD03	SS13	398		93.4219-4		93.4219		Sediment
BTR-SS13-SD06	BTR-SD08-SD06	SS13	408		93.4203-2		93.4203		Sediment
BTR-SS13-SD07	BTR-SD08-SD07	SS13	408		93.4203-3		93.4203		Sediment
BTR-SS13-SD08	BTR-SD08-SD08	SS13	408		93.4203-1		93.4203		Sediment

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1	SAMPLE DESCRIPTION		Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
LABORATORY BATCH IDENTIFICATION	F&B						
LABORA	CT&E		93.4216 93.4212	93.4213 93.4219	93.4206	93.4206	93.4206
LABORATORY DENTIFICATION	F&B						
LABOF	CT&E	Heated Storage (SS13) (Continued)	93.4216-4 93.4212-1	93.4213-1 93.4219-7	93.4206-2	93,4206-3	93.4206-1
FIELD BATCH	F&B	torage (SS1					
FIELD	CT&E	Heated S	399 378	383	409	409	409
ļ	SITE IDENTIFICATION		SS13	SS13	SS13	SS13	SS13
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-SS13-SW01	BTR-SS13-SW02	BTR-SD08-SW05	BTR-SD08-SW06	BTR-SD08-SW07
RI/FS TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-SS13-SW01	BTR-SS13-SW02	BTR-SS13-SW05	BTR-SS13-SW06	BTR-SS13-SW07

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	z										cate			
L G	SAMPLE		Soil	Soil	Soil	Soil	Field Replicate Soil	Soil	Soil	Soil Spike	Soil Spike Duplicate	Soil	Soil Duplicate	Soil Spike
LABORATORY BATCH IDENTIFICATION	F&B		#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#5-09/05/93 #3&4-09/06/93	#5-09/05/93 #3&4-09/06/93			#5-09/05/93 #3&4-09/06/93	#5-09/05/93 #3&4-09/06/93	#2-09/02/93
LABORAT	СТ&Е					93.4301		93.4616	93.4616	93.4616	93.4616	93.4616		
ATORY CATION	F&B		339	341	343	345	347	1706	1710			1708	1708dup	1708ms
LABORATORY	CT&E	2) (SS14)				93.4301-7		93.4616-1	93.4616-3	93.4616-4	93.4616-5	93.4616-2		
FIELD BATCH DENTIFICATION	F&B	Garage (Building 2) (SS14)	390	390	390	390	390	476	476			476	476	476
FIELD	CT&E	Gara				493		477	477	477	477	477		
!	SITE		SS14	SS14	SS14	SS14	SS14	SS14						
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-SS14-S01	BTR-SS14-S02	BTR-SS14-S03	BTR-SS14-S04	BTR-SS14-S06	BTR-SS14-2S05	BTR-SS14-2S07	BTR-SS14-2S07	BTR-SS14-2S07	BTR-SS14-2S06-3	BTR-SS14-2S06-3	BTR-SS14-2S06-3
RI/FS TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-SS14-S01	BTR-SS14-S02-2.5	BTR-SS14-S03-3	BTR-SS14-S04-2	BTR-SS14-S06-3	BTR-SS14-2S05-2	BTR-SS14-2S07-4	BTR-SS14-2S07-4S	BTR-SS14-2S07-4SD	BTR-SS14-2S08-3	BTR-SS14-2S08-3DP	BTR-SS14-2S08-3S

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	SAMPLE DESCRIPTION		Soil Spike Duplicate	Sediment	Sediment Duplicate	Sediment Spike	Sediment Spike Duplicate	Surface Water	Surface Water Duplicate	Surface Water Spike	Surface Water Spike Duplicate
LABORATORY BATCH IDENTIFICATION	F&B		#5-09/05/93 #3&4-09/06/93	#6-08/23/93 #1&2-08/24/93				#6-08/23/93 #1&2-08/24/93			
LABORA	CT&E			93.4301	93.4301	93.4301	93.4301	93.4301	93.4301	93.4301	93.4301
LABORATORY	F&B	(d)	1708msd	349				333 334 336			
LABOR	CT&E	Garage (Building 2) (SS14) (Continued)		93.4301-4	93.4301-6	93.4301-5	93,4301-17	93.4301-1	93.4301-3	93.4301-2	93.4301-16
FIELD BATCH	F&B	ilding 2) (S	476	390				390			
FIELD	CT&E	Garage (Bu		493	493	493	493	493	493	493	493
	SITE IDENTIFICATION		SS14	SS14	SS14	SS14	SS14	SS14	SS14	SS14	SS14
FIELD CHAIN-OF-	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-SS18-2S06-3	BTR-SS14-SD01	BTR-SS14-SD01	BTR-SS14-SD01	BTR-SS14-SD01	BTR-SS14-SW01	BTR-SS14-SW01	BTR-SS14-SW01	BTR-SS14-SW01
DI/ES TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-SS14-2S08-3SD	BTR-SS14-SD01	BTR-SS14-SD01DP	BTR-SS14-SD01S	BTR-SS14-SD01SD	BTR-SS14-SW01	BTR-SS14-SW01DP	BTR-SS14-SW01S	BTR-SS14-SW01SD

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RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND	L	FIELD BATCH IDENTIFICATION	SATCH	LABOR	LABORATORY	LABORA	ABORATORY BATCH IDENTIFICATION	L
IABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SILE	CT&E	F&B	СТ&Е	F&B	СТ&Е	F&B	SAMPLE DESCRIPTION
			Weather	Station Bui	Weather Station Building (SS15)				
BTR-SS15-S01	BTR-AOC1-S01	SS15	411		93.4198-1		93.4198		Soil
BTR-SS15-S01S	BTR-AOC1-S01	SS15	411		93.4198-2		93.4198		Soil Spike
BTR-SS15-S01SD	BTR-AOC1-S01	SS15	411		93.4198-3		93.4198		Soil Spike Duplicate
BTR-SS15-S02	BTR-AOC1-S02	SS15	411		93.4198-4		93.4198		Soil
BTR-SS15-S03	BTR-AOC1-S03	SS15	406 411		93.4178-1 93.4198-5		93.4178 93.4198		Soil
BTR-SS15-S04	BTR-AOC1-S04	SS15	411		93.4198-6		93.4198		Soil
BTR-SS15-S05	BTR-AOC1-S05	SS15	411		93.4198-7		93.4198		Soil
BTR-SS15-2S06	BTR-AOC1-2S06	SS15		475		1682		#5-09/05/93 #3&4-09/06/93	Soil
BTR-SS15-2S07-2	BTR-AOC1-2S07 ^a	SS15		475		1684		#5-09/05/93 #3&4-09/06/93	Soil
BTR-SS15-2S08-2	BTR-AOC1-2S08- 1.5 ^a	SS15		475		1686		#5-09/05/93 #3&4-09/06/93	Soil

CT&E -F&B -a

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These samples were both misnumbered by F&B as BTR-AOC1-2S06.

CROSS-REFERENCE SAMPLE IDENTIFICATION (CONTINUED)

	SAMPLE DESCRIPTION		Soil	Soil	Soil	Soil	Soil	Soil	Field Replicate Soil	Soil	Soil	Soil	Field Replicate Soil	Soil	Soil
LABORATORY BATCH IDENTIFICATION	F&B		#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#5-09/04/93	#5-09/04/93	#5-09/04/93	#5-09/04/93	#5-09/04/93	#5-09/04/93
LABORA	CT&E														
LABORATORY	F&B		320	321	370	371	372	373	374	1671	1672	1673	1674	1675	1676
LABOF	CT&E	lity (SS16)													
FIELD BATCH	F&B	White Alice Facility (SS16)	392	392	387	387	387	387	387	474	474	474	474	474	474
FIELD	CT&E	Whi													
	SITE IDENTIFICATION		SS16	SS16	SS16	SS16	SS16	SS16	SS16						
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-AOC07-S01	BTR-AOC07-S02	BTR-AOC07-S03	BTR-AOC07-S04	BTR-AOC07-S05	BTR-AOC07-S06	BTR-AOC07-S07	BTR-AOC7-2S08-1.0	BTR-AOC7-2S09	BTR-AOC7-2S10	BTR-AOC7-2S11	BTR-AOC7-2S12	BTR-AOC7-2S13
RI/FS TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-SS16-S01	BTR-SS16-S02	BTR-SS16-S03	BTR-SS16-S04	BTR-SS16-S05	BTR-SS16-S06	BTR-SS16-S07	BTR-SS16-2S08-1.5	BTR-SS16-2S09	BTR-SS16-2S10	BTR-SS16-2S11	BTR-SS16-2S12	BTR-SS16-2S13-1.5

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	SAMPLE DESCRIPTION		Soil	Soil	Soil	Soil	Field Replicate Soil
ABORATORY BATCH IDENTIFICATION	F&B		#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93
LABORA ⁻ IDENT	CT&E				93.4302		93.4302
LABORATORY IDENTIFICATION	F&B		#6-08/31/93 #1&2- 08/31/93	#6-08/31/93 #1&2- 08/31/93	#6-08/31/93 #1&2- 08/31/93	#6-08/31/93 #1&2- 08/31/93	#6-08/31/93 #1&2- 08/31/93
LABOF	CT&E	ST17)			93.4302-4		93.4302-5
FIELD BATCH	F&B	POL Tanks (ST17)	394	394	394	394	394
FIELD I	CT&E	u .			498		498
	SITE		ST17	ST17	ST17	ST17	ST17
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-AOC08-S02	BTR-AOC08-S03	BTR-AOC08-S04	BTR-AOC08-S05	BTR-AOC08-S06
RI/FS TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-ST17-S02	BTR-ST17-S03	BTR-ST17-S04	BTR-ST17-S05-1.5	BTR-ST17-S06

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	SAMPLE DESCRIPTION		Soil	Soil	Soil	Soil Duplicate	Soil Spike	Soil Spike Duplicate						
LABORATORY BATCH IDENTIFICATION	F&B		#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93	#6-08/31/93 #1&2-08/31/93
LABORA	CT&E			93.4302										
LABORATORY IDENTIFICATION	F&B		1302	1304	1306	1310	1312	1314	1322	1316	1318	1318dup	1318ms	1318msd
LABOF	CT&E	(ST18)		93.4302-7										
FIELD BATCH DENTIFICATION	F&B	Fuel Tanks (ST18)	394	394	394	394	394	394	394	394	394	394	394	394
FIELD	CT&E			498										
	SITE IDENTIFICATION		ST18	ST18	ST18	ST18	ST18	ST18						
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-AOC09-S01	BTR-AOC09-S02	BTR-AOC09-S03	BTR-AOC09-S04	BTR-AOC09-S05	BTR-AOC09-S06	BTR-AOC09-S07	BTR-AOC09-S08	BTR-AOC09-S09	BTR-AOC09-S09	BTR-AOC09-S09	BTR-AOC09-S09
RI/FS TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-ST18-S01	BTR-ST18-S02	BTR-ST18-S03	BTR-ST18-S04	BTR-ST18-S05	BTR-ST18-S06	BTR-ST18-S07	BTR-ST18-S08-0.75	BTR-ST18-S09-1.5	BTR-ST18-S09DP	BTR-ST18-S09S	BTR-ST18-S09SD

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	RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND	ļ	FIELD BATCH IDENTIFICATION	SATCH	LABOF	LABORATORY DENTIFICATION	LABORA IDENT	ABORATORY BATCH IDENTIFICATION	
	I ABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SILE	CT&E	F&B	CT&E	F&B	CT&E	F&B	SAMPLE DESCRIPTION
				Fuel Ta	nks (ST18)	Fuel Tanks (ST18) (Continued)				
	BTR-ST18-S10	BTR-AOC09-S10	ST18		394		1308		#6-08/31/93 #1&2-08/31/93	Field Replicate Soil
	BTR-ST18-2S11-2	BTR-A0C9-2S11-1.5	ST18	477	479	93.7616-6	1754	93.4616	#1&2-08/31/93	Soil
1	BTR-ST18-2S11-2S	BTR-A0C9-2S11-1.5	ST18	477		93.4616-7		93.4616		Soil Spike
	BTR-ST18-2S11-2SD	BTR-A0C9-2S11-1.5	ST18	477		93.4616-8		93.4616		Soil Spike Duplicate
	BTR-ST18-2S12-2	BTR-AOC9-2S12- 1.5 ^a	ST18		479		1752		#1&2-09/06/93	Soil
	BTR-ST18-2S12-2DP	BTR-AOC9-2S12- 1.5 ^a	ST18		479		1752dup		#6-09/05/93 #1&2-09/06/93	Soil Duplicate
	BTR-ST18-2S12-2S	BTR-AOC9-2S12- 1.5 ^a	ST18		479		1752ms		#6-09/05/93 #1&2-09/06/93	Soil Spike
	BTR-ST18-2S12-2SD	BTR-AOC9-2S12- 1.5 ^a	ST18		479	-	1752msd		#6-09/05/93 #1&2-09/06/93	Soil Spike Duplicate
	BTR-ST18-SW01	BTR-AOC09-SW01	ST18	498	392	93.4302-8	317	93.4302	#3&4-08/24/93	Surface Water
	BTR-ST18-SD01	BTR-AOC09-SD01	ST18	498	393	93.4302-6	1320	93.4302	#6-08/31/93 #1&2-08/31/93	Sediment

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R&B misnumbered this sample as BTR-AOC09-2S14.5

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							LABORA	TORY BATCH	
	L.	ļ	FIELD BATCH	FIELD BATCH DENTIFICATION	LABOR	LABORATORY IDENTIFICATION	DEN	IDENTIFICATION	II GW
DATA VALIDATION SAMPLE IDENTIFICATION IDENTIFICATION	1		СТ&Е	F&B	CT&E	F&B	CT&E	F&B	SAMPLE
		1 1	Olc	Old Dump Site (LF19)	e (LF19)				
BTR-AOC10-S01 LF19	LF19		493	390	93.4301-9	353	93.4301	#6-08/23/93 #1&2-08/24/93	Soil
BTR-AOC10-S02 LF19	LF19			390		355		#6-08/23/93 #1&2-08/24/93	Soil
BTR-AOC10-S03 LF19	LF19			390		357		#6-08/23/93 #1&2-08/24/93	Soil
BTR-AOC10-S04 LF19	LF19		493	390	93.4301-8	359	93.4301	#6-08/23/93 #1&2-08/24/93	Soil
BTR-A0C10-S04 LF19	LF19		493		93.4301-14		93.4301		Soil Spike
BTR-AOC10-S04 LF19	LF19		493		93.4301-15		93.4301		Soil Spike Duplicate
BTR-AOC10-S05 LF19	LF19			390		361		#6-08/23/93 #1&2-08/24/93	Soil
BTR-AOC10-S06 LF19	LF19		493	390	93.4301-10	363	93.4301	#6-08/23/93 #1&2-08/24/93	Field Replicate Soil
BTR-AOC10-2S06- LF19	LF19			476		1698		#5-09/05/93 #3&4-09/06/93	Soil
BTR-AOC10-2S07 LF19	LF19			476		1700		#5-09/05/93 #3&4-09/06/93	Soil
BTR-AOC10-2S08 LF19	LF19			476		1702		#5-09/05/93 #3&4-09/06/93	Soil
BTR-AOC10-2S09 LF19	LF19			476		1704		#5-09/05/93 #3&4-09/06/93	Field Replicate Soil

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RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND		FIELD BATCH IDENTIFICATION	SATCH	LABOF	LABORATORY DENTIFICATION	LABORA IDENT	LABORATORY BATCH IDENTIFICATION	
TABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	CT&E	F&B	CT&E	F&B	CT&E	F&B	SAMPLE DESCRIPTION
			Old Dum	o Site (LF19	Old Dump Site (LF19) (Continued)				
BTR-LF19-SD01	BTR-AOC10-SD01	LF19		390		351		#6-08/23/93 #1&2-08/24/93	Soil
BTR-LF19-2SD02	BTR-AOC10-2SD02	LF19		476		1696		#5-09/05/93 #3&4-09/06/93	Soil
BTR-LF19-SW01	BTR-AOC10-SW01	LF19	491	392	93.4303-6	307	93.4303	#3&4-08/24/93	Surface Water
BTR-LF19-SW01DP	BTR-AOC10-SW01	LF19	491		93.4303-8		93.4303		Surface Water Duplicate
BTR-LF19-SW01S	BTR-AOC10-SW01	LF19	491		93.4303-7		93,4303		Surface Water Spike
BTR-LF19-SW01SD	BTR-AOC10-SW01	LF19	491		93.4303-10		93.4303		Surface Water Spike Duplicate

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	SAMPLE DESCRIPTION		Soil	Soil	Soil	Field Replicate Soil	Sediment	Sediment Duplicate	Sediment Spike	Sediment Spike Duplicate	Sediment	Sediment Duplicate	Sediment Spike
LABORATORY BATCH IDENTIFICATION	F&B		#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93				#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93
LABORA	CT&E			93.4305	93.4305	93.4305	93.4305	93.4305	93.4305	93.4305			
LABORATORY DENTIFICATION	F&B		402	400	385 386	380	378				381 382	384dup	384ms
LABOF	CT&E	pill (SS20)		93.4305-6	93,4305-5	93.4305-4	93.4305-1	93.4305-3	93.4305-2	93.4305-11			
FIELD BATCH DENTIFICATION	F&B	Bladder Diesel Spill (SS20)	389	389	387	387	387				387	387	387
FIELD	CT&E	Blad		492	492	492	492	492	492	492			
	SITE IDENTIFICATION		SS20	SS20	SS20	SS20	SS20	SS20	SS20	SS20	SS20	SS20	SS20
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-AOC14-S01	BTR-AOC14-S02	BTR-AOC14-S03	BTR-AOC14-S04	BTR-AOC14-SD01	BTR-AOC14-SD01	BTR-AOC14-SD01	BTR-AOC14-SD01	BTR-AOC14-SD02	BTR-AOC14-SD02	BTR-AOC14-SD02
RI/FS TEXT AND	I ABLE SAMPLE IDENTIFICATION		BTR-SS20-S01-0.75	BTR-SS20-S02-0.75	BTR-SS20-S03-1	BTR-SS20-S04-1	BTR-SS20-SD01	BTR-SS20-SD01DP	BTR-SS20-SD01S	BTR-SS20-SD01SD	BTR-SS20-SD02	BTR-SS20-SD02DP	BTR-SS20-SD02S

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RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND		FIELD BATCH IDENTIFICATION	SATCH	LABOF	LABORATORY IDENTIFICATION	LABORA IDEN	LABORATORY BATCH IDENTIFICATION	1
TABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE	CT&E	F&B	CT&E	F&B	CT&E	F&B	SAMPLE DESCRIPTION
			Bladder Die	sel Spill (SS	Bladder Diesel Spill (SS20) (Continued)	d)			
BTR-SS20-SD02SD	BTR-AOC14-SD02	SS20		387		384msd		#6-08/23/93 #1&2-08/24/93	Sediment Spike Duplicate
BTR-SS20-SW01	BTR-AOC14-SW01	SS20	492	387 389	93.4305-7	388 398	93.4305	#6-08/23/93 #1&2-08/24/93	Surface Water
BTR-SS20-SW01DP	BTR-AOC14-SW01	SS20	492	387 389		397dup		#1&2-08/24/93	Surface Water Duplicate
BTR-SS20-SW01S	BTR-AOC14-SW01	SS20	492	387 389	93.4305-8	396ms	93.4305	#1&2-08/24/93	Surface Water Spike
BTR-SS20-SW01SD	BTR-AOC14-SW01	SS20	492	387 389	93.4305-9	395msd	93.4305	#1&2-08/24/93	Surface Water Spike Duplicate
BTR-SS20-SW02	BTR-AOC14-SW02	SS20		389		403 406		#6-08/23/93 #1&2-08/24/93	Field Duplicate Surface Water
BTR-SS20-SW03	BTR-AOC14-SW03	SS20		389		407 410		#6-08/23/93 #1&2-08/24/93	Surface Water

CT&E - Commercial Testing and Engineering Co. Friedman and Bruya, Inc.

	SAMPLE DESCRIPTION		Soil	Soil	Soil	Soil	Soil
LABORATORY BATCH IDENTIFICATION	F&B		#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#6-08/23/93 #1&2-08/24/93	#5-09/05/93 #3&4-09/06/93	#5-09/05/93 #3&4-09/06/93
LABORA	CT&E			93.4301			
LABORATORY DENTIFICATION	F&B		364	998	698	1692	1694
LABOF	CT&E	3S21)		93.4301-11			
FIELD BATCH	F&B	JP-4 Spill (SS21)	387	387	387	476	476
FIELD	CT&E			493			
	SITE IDENTIFICATION		SS21	SS21	SS21	SS21	SS21
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-AOC15-S01	BTR-AOC15-S02	BTR-AOC15-S03	BTR-AOC15-S04	BTR-AOC15-2S05
RI/FS TEXT AND	TABLE SAMPLE IDENTIFICATION		BTR-SS21-S01	BTR-SS21-S02	BTR-SS21-S03	BTR-SS21-S04	BTR-SS21-2S05

:T&E - Commercial Testing and Engineering Co. &B - Friedman and Bruya, Inc.

RI/FS TEXT AND	FIELD CHAIN-0F- CUSTODY AND		FIELD BATCH IDENTIFICATION	ATCH SATION	LABORATORY IDENTIFICATION	ATORY CATION	LABORA	LABORATORY BATCH IDENTIFICATION	
TABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE IDENTIFICATION	CT&E	F&B	CT&E	F&B	CT&E	F&B	SAMPLE DESCRIPTION
				Background	pu				
BTR-BKGD-S01	BTR-BKGD-S01	Background	408		93.4203-5		93.4203		Soil
BTR-BKGD-S02	BTR-BKGD-S02	Background	408 377		93.4203-6 93.4175-2		93.4203 93.4175		Soil
BTR-BKGD-S03	BTR-BKGD-S03	Background	407		93.4199-4		93.4199		Soil
BTR-BKGD-S04	BTR-BKGD-S04	Background	408		93.4203-4		93.4203		Field Replicate Soil
BTR-BKGD-SD01	BTR-BKGD-SD01	Background	407 376		93.4199-1 93.4179-4		93.4199 93.4179		Sediment
BTR-BKGD-SD01SD	BTR-BKGD-SD01	Background	407		93.4199-3		93.4199		Sediment Spike Duplicate
BTR-BKGD-SD01S	BTR-BKGD-SD01	Background	407		93.4199-2		93.4199		Sediment Spike
BTR-BKGD-SD02	BTR-BKGD-SD02	Background	407		93.4199-7		93.4199		Sediment
BTR-BKGD-2SD02	BTR-BKGD-2SD02 ^a BTR-BKGD-2SD03	Background	477	478	93.4616-17	1746	93.4616	#6-09/05/93 #1&2-09/06/93	Sediment
BTR-BKGD-SW01	BTR-BKGD-SW01	Background	407 376		93.4199-6 93.4179-2		93.4199 93.4179		Surface Water
BTR-BKGD-SW02	BTR-BKGD-SW02	Background	407 376		93.4199-5 93.4179-3		93.4199 93.4179		Surface Water

Commercial Testing and Engineering Co. Friedman and Bruya, Inc. This sample was incorrectly labeled as BTR-BKGD-2SD02 on the COC to F&B.

CT&E -F&B -a

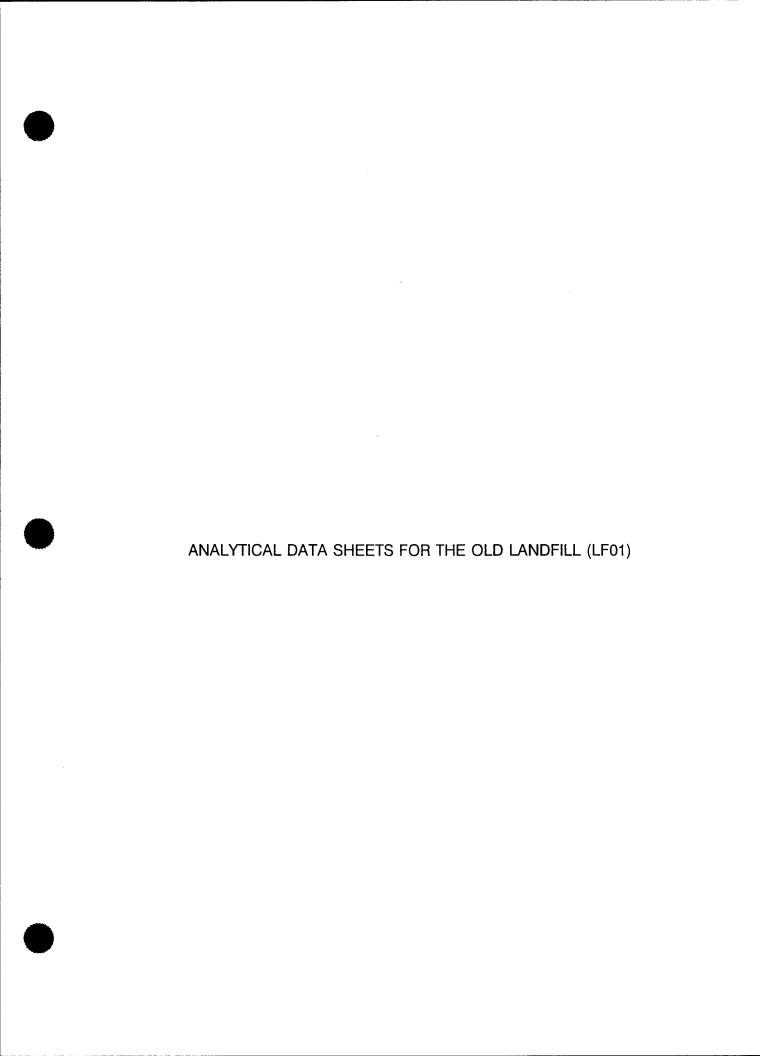
RI/FS TEXT AND	FIELD CHAIN-OF- CUSTODY AND		FIELD BATCH IDENTIFICATION	SATCH	LABOF	LABORATORY DENTIFICATION	LABORA IDENT	LABORATORY BATCH IDENTIFICATION	
IABLE SAMPLE IDENTIFICATION	DATA VALIDATION SAMPLE IDENTIFICATION	SITE	CT&E	F&B	СТ&Е	F&B	CT&E	F&B	SAMPLE DESCRIPTION
				QA/QC					
BTR-AB01	BTR-SD08-AB01	aA/ac	405 410		93.4173-9 93.4197-6		93.4173 93.4197		Ambient Blank
BTR-AB02	BTR-AB-02	QA/QC	491	392	93.4303-1	315	93.4303	#3&4-08/24/93	Ambient Blank
BTR-AB03	BTR-AB-03	QA/QC		476		1712		#1&2-09/04/93	Ambient Blank
BTR-EB01	BTR-SD08-SEB	aA/ac	408		93.4175-3 93.4203-8		93.4175 93.4203		Equipment Blank
BTR-EB02	BTR-SD08-WEB	aA/ac	409 376		93.4206-4 93.4179-1		93.4206 93.4179		Equipment Blank
BTR-EB03A	BTR-SS13-WEB	aA/ac	397 400		93.4215-7 93.4211-1		93.4215 93.4211		Equipment Blank
BTR-EB03	BTR-SS13-SEB2	aA/ac	383 397		93.4213-4 93.4215-6		93.4213 93.4215		Equipment Blank
BTR-EB04	BTR-EB-04	QA/QC	498	392	93.4302-10	311	93.4302	#3&4-08/24/93	Equipment Blank
BTR-EB04DP	BTR-EB-04	QA/QC	498		93.4302-12		93.4302		Equipment Blank Duplicate
BTR-EB04S	BTR-EB-04	QA/QC	498		93.4302-11		93.4302		Equipment Blank Spike
BTR-EB04SD	BTR-EB-04	QA/QC	498		93.4302-14		93.4302		Equipment Blank Spike Duplicate
BTR-EB05	BTR-EB-05	QA/QC	491	392	93.4303-5	332	93.4303	#3&4-08/24/93	Equipment Blank

CT&E - Commercial Testing and Engineering Co. F&B - Friedman and Bruya, Inc.

	SAMPLE DESCRIPTION		Equipment Blank	Equipment Blank	Equipment Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Decontamination Wastewater
LABORATORY BATCH IDENTIFICATION	F&B		#5-09/06/93 #1&2-09/04/93	#5-09/06/93 #1&2-09/06/93	#5-09/06/93 #1&2-09/06/93				#3&4-08/31/93	#1&2-08/24/93	
LABORA	CT&E			93.4616	93.4616	93.4173 93.4179	93.4197	93.4211	93.4302		93.4615
LABORATORY	F&B		1688 1690	1715 1716	1719 1720				1346	375	
LABOR	CT&E	ıtinued)		93.4616-9	93.4616-13	93.4173-10 93.4179-5	93.4197-7	93.4211-2	93.4302-9		93.4615-1
FIELD BATCH DENTIFICATION	F&B	QA/QC (Continued)	476	478	478				395	387 493	
FIELD	CT&E			477	477	491 376	410	400	498		481
	SITE IDENTIFICATION		aA/aC	aA/ac	QA/QC	aA/ac	QA/QC	QA/QC	QA/QC	QA/QC	QA/QC
FIELD CHAIN-OF- CUSTODY AND	DATA VALIDATION SAMPLE IDENTIFICATION		BTR-EB-06	BTR-EB-07	BTR-EB-08	BTR-SD08-TB01	BTR-SD08-TB02	BTR-LF03-TB03	BTR-TB-04	BTR-TB-05	BTR-IDW-01
RI/FS TEXT AND	IABLE SAMPLE IDENTIFICATION		BTR-EB06	BTR-EB07	BTR-EB08	BTR-TB01	BTR-TB02	BTR-TB03	BTR-TB04	BTR-TB05	BTR-IDW-01

CT&E - Commercial Testing and Engineering Co. F&B - Friedman and Bruya, Inc.

3. ANALYTICAL DATA





ENVIRONMENTAL LABORATORY SERVICES

chemlab Ref.#

:93.4303-2

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99513

Client Sample ID :BTR-LF01-S01-0-19 Matrix

:SOIL

TEL: (907) 562-2343 FAX: (907) 551-5301

Client Name

:ICF KAISER ENGINEERING

WORK Order :70013

Ordered By

:RAY MORRIS

Report Completed :09/30/93

Project Name Project#

:DEW LINE :BARTER

Collected :08/21/93 @ 10:00 hrs :08/24/93 @ 12:00 hrs

PWSID

Received

Technical Director: STEPHEN C. EDE

:UA

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. NO SURROGATE WAS ADDED TO THE 8270 DURING EXTRACTION.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics		-5	 	EPA 8260				
	Benzene VALIDATIO	0.025	υ¥	mg/Kg	EPA 8260		08/25	09/05	SGM
	Bromobenzene QuaufiaR	0.025	Us	mg/Kg	EPA 8260		08/25	09/05	SGM
	Bromochloromethane (Common)	0.025	UĴ	mg/Kg	EPA 8260		08/25	09/05	SGM
	Bromodichloromethane *	0.025	US	mg/Kg	EPA 8260		08/25	09/05	SGM
	Bromoform	0.025	UJ	mg/Kg	EPA 8260	•		09/05	SGM
	Bromomethane	0.025	Us	mg/Kg	EPA 8260			09/05	SGM
	n-Butylbenzene	0.025	UŤ	mg/Kg	EPA 8260			09/05	SGM
	sec-Butylbenzene	0.025	UĴ	mg/Kg	EPA 8260		08/25	09/05	SGM
	tert-Butylbenzne	0.025	UT	mg/Kg	EPA 8260		08/25	09/05	SGM
	Carbon Tetrachloride	0.025	U J	mg/Kg	EPA 8260		08/25	09/05	SGM
	Chlorobenzene	0.025	UT	mg/Kg	EPA 8260		08/25	09/05	SGM
	Chloroethane	0.025	U T	mg/Kg	EPA 8260		08/25	09/05	SGM
	Chloroform	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
	Chloromethane	0.025	UΤ	mg/Kg	EPA 8260		08/25	09/05	SGM
	2-Chlorotoluene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
	4-Chlorotoluene	0.025	τU	mg/Kg	EPA 8260		08/25	09/05	SGM
	Dibromochloromethane	0.025	បូវ	mg/Kg	EPA 8260		08/25	09/05	SGM
	12Dibromo3Chloropropane	0.025	US	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,2-Dibromoethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
	Dibromomethane	0.025	UJ	mg/Kg	EPA 8260			09/05	SGM
	1,2-Dichlorobenzene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,3-Dichlorobenzene	0.025	ŬͿ	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,4-Dichlorobenzene	0.025	U 🗗	mg/Kg	EPA 8260		08/25	09/05	SGM
	Dichlorodifluoromethane	0.025	U4	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,1-Dichloroethane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,2-Dichloroethane	0.025	W	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,1-Dichloroethene	0.025)	mg/Kg	EPA 8260		08/25	09/05	SGM
	cis-1,2-Dichloroethene	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
	trans1,2-Dichloroethene	0.025	UJ	mg/Kg	EPA 8260		08/25		SGM
	1,2-Dichloropropane	0.025	UJ	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,3-Dichloropropane	0.025	UJ	mg/Kg	EPA 8260		08/25		SGM
	2,2-Dichloropropane	0.025	UJ	mg/Kg	EPA 8260		08/25		SGM
	1,1-Dichloropropene	0.025	UJ	mg/Kg	EPA 8260		08/25		SGM
	Ethylbenzene	0.025	UJ	mg/Kg	EPA 8260		08/25		SGM
	Hexachlorobutadiene	0.025	11	mg/Kg	EPA 8260		08/25		SGM
7	Isopropylbenzene	0.025	US	mg/Kg	EPA 8260		08/25	09/05	SGM



ENVIRONMENTAL LABORATORY SERVICES

5 1:15 - 278							
		REFOR	RT of An	NALYSIS		5633 B S	
Chemlab Ref.# :93.4303-		5 \ n	BEW ".3	ua by.		ORAGE, AK EL: (907) 56	
Client Sample ID :BTR-LF01	-501	367	BEM 11.7	^{,,} વર્ષ		AX: (907) 56	
Matrix :SOIL		Validatim Dualifier	U.				
_ ,,,,	0 025	363		EDA 9260	08/25	09/05	1D2
p-Isopropyltoluene	0.025		mg/Kg	EPA 8260 EPA 8260	08/25		SGI
Methylene Chloride	0.025	02	mg/Kg		08/25		SGI
Napthalene	0.025		mg/Kg	EPA 8260	08/25		100 102
n-Propylbenzene	0.025	03	mg/Kg	EPA 8260	08/25		10C
Styrene	0.025	02	mg/Kg	EPA 8260			SG1
1112-Tetrachloroethane	0.025	UJ	mg/Kg	EPA 8260	08/25		SGI
1122-Tetrachloroethane	0.025	UJ	mg/Kg	EPA 8260	08/25 08/25		SGI
Tetrachloroethene	0.025	n2	mg/Kg	EPA 8260			SGN
Toluen e	0.025	Us	mg/Kg	EPA 8260	08/25		SGI
1,2,3-Trichlorobenzene	0.025	Π2	mg/Kg	EPA 8260	08/25		
1,2,4-Trichlorobenzene	0.025	UJ	mg/Kg	EPA 8260	08/25		SGN
1,1,1-Trichloroethane	0.025	Ua	mg/Kg	EPA 8260	08/25		SGP
1,1,2-Trichloroethane	0.025	บฮ	mg/Kg	EPA 8260	08/25		SGI
Trichloroethene	0.025	υ	mg/Kg	EPA 8260	08/25		SGT
Trichlorofluoromethane	0.025	UJ	mg/Kg	EPA 8260 ·	08/25		SGN
1,2,3-Trichloropropane	0.025	Ω2	mg/Kg	EPA 8260	08/25		SGI
1,2,4-Trimethylbenzene	0.025	UJ	mg/Kg	EPA 8260		09/05	SGI
1,3,5-Trimethylbenzene	0.025	UJ	mg/Kg	EPA 8260	08/25		SGN
Vinyl Chloride	0.025	U3	mg/Kg	EPA 8260 '		09/05	SGL
p+m-Xylene	0.025	UJ [mg/Kg	EPA 8260		09/05	SGI
o-Xylene	0.025	m 1	mg/Kg	EFA 8260	08/25	09/05	SGI
Semivolatile Organics			•	EPA 8270			
Phenol	0.230	URG)mg/Kg	EPA 8270	09/04	09/29	rı
bis(2-Chloroethyl)ether	0.230		mg/Kg	EPA 8270		09/29	TTm
2-Chlorophenol	C 3 6 0 230	UR	mg/Kg	EPA 8270		09/29	TTM
1,3-Dichlorobenzene	\$ 0.230 \$ 0.230	UR	mg/Kg	EPA 8270		09/29	TTM
	36.230	UR	mg/Kg	EPA 8270		09/29	MTT
1,4-Dichlorobenzene	30.230 30.230	UR	mg/Kg	EPA 8270		09/29	HTT
Benzyl Alcohol	0.230	UR	mg/Kg	EPA 8270		09/29	MTI
1,2-Dichlorobenzene	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
2-Methylphenol	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
bis(2-Chloroisopropyl)e	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
4-Methylphenol	0.230	UR	mg/Kg	EPA 8270		09/29	M'I'I
n-Nitroso-di-n-Propylam	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
Hexachloroethane	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
Nitrobenzene	0.230	UR	mg/Kg	EPA 8270	09/04	09/29	CTM
Isophorone 2-Nitrophenol	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
2,4-Dimethylphenol	0.230	ÜŔ		EPA 8270		09/29	CTM
Benzoic Acid	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
bis(2-Chloroethoxy)Meth	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
2,4-Dichlorophenol	0.230	UR		EPA 8270		09/29	MTT
1,2,4-Trichlorobenzene	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
Naphthalene	0.230	υŔ		EPA 8270		09/29	CTM
4-Chloroaniline	0.230	UR	mg/Kg	EPA 8270		09/29	MTT
Hexachlorobutadiene	0.230	UR	mg/Kg mg/Kg	EPA 8270		09/29	MT
4-Chloro-3-Methylphenol	0.230	UK		EPA 8270		09/29	MT
2-Methylnaphthalene	0.230		mg/Kg	EPA 8270		09/29	TTM
Hexachlorocyclopentadie	0.230	UR	mg/Kg	EPA 8270		09/29	MT
2,4,6-Trichlorophenol	0.230		mg/Kg mg/Kg	EPA 8270		09/29	MT
2,4,5-Trichlorophenol	0.230	O M	my/Ny	EFA UZIU	03,01		
						`	



ENVIRONMENTAL LABORATORY SERVICES

5.508 1919	n	יבים	RT of ANA	AT VCTC				
Chemlab Ref.# :93.4303-2	17					5633 B S		
	YALIDATION QUARIFIER					ANCHORAGE, AK 99518 TEL: (907) 562-2343		
Client Sample ID :BTR-LF01-S01			(CONMEN	re)		FAX: (907) 56	1-5301	
Matrix :SOIL		₩.	COMMEN	, -)				
2 Chloropaphthaloge	0.230	•	mg/Kg	EPA 8270		09/04 09/29	MTT	
2-Chloronaphthalene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
2-Nitroaniline	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI	
Dimethylphthalate	0.230	UR		EPA 8270		09/04 09/29	MTI	
Acenaphthylene		• -	mg/Kg	EPA 8270		09/04 09/29	MTT	
2,6-Dinitrotoluene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI	
3-Nitroaniline	0.230	UR	mg/Kg			09/04 09/29	TTM	
Acenaphthene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI	
2,4-Dinitrophenol	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	דזיא	
4-Nitrophenol	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI	
Dibenzofuran	0.230	υŖ	mg/Kg	EPA 8270		09/04 09/29	TTM	
2,4-Dinitrotoluene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI	
Diethylphthalate	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI	
4-Chlorophenyl-Phenylet	0.230	ΠĶ	mg/Kg	EPA 8270		09/04 09/29	MTI	
Fluorene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTI	
4-Nitroaniline	0.230	UR	mg/Kg	EPA 8270 EPA 8270		09/04 09/29	MTI	
4,6-Dinitro-2-Methylphe	0.230	UR	mg/Kg	EPA 8270 EPA 8270		09/04 09/29	MTI	
n-Nitrosodiphenylamine	0.230	-	mg/Kg	EPA 8270 EPA 8270		09/04 09/29	MTI	
4-Bromophenyl-Phenyleth	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
Hexachlorobenzene	0.230 0.230	UR	mg/Kg	EPA 8270 EPA 8270		09/04 09/29	MTT	
Pentachlorophenol		UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
Phenanthrene	0.230	UR	mg/Kg	EPA 8270 EPA 8270		09/04 09/29	MTT	
Anthracene	0.230	UR	mg/Kg			09/04 09/29	MTT	
di-n-Butylphthalate	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
Fluoranthene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
Pyrene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MIT	
Butylbenzylphthalate	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
3,3-Dichlorobenzidine	0.230	UR	mg/Kg	EPA 8270 EPA 8270		09/04 09/29	MTI	
Benzo(a)Anthracene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
Chrysene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
bis(2-Ethylhexyl)Phthal	0.230	U R	mg/Kg	EPA 8270 EPA 8270		09/04 09/29	MTT	
di-n-Octylphthalate	0.230 0.230		mg/Kg	EPA 8270		09/04 09/29	MTI	
Benzo(b)Fluoranthene	0.230	UR	mg/Kg	EPA 8270		09/04 09/29	MTT	
Benzo(k)Fluoranthene	0.230	υŔ		EPA 8270		09/04 09/29	MTI	
Benzo(a)Pyrene	0.230	UK		EPA 8270		09/04 09/29	MTI	
Indeno(1,2,3-cd)Pyrene			mg/Kg			09/04 09/29	TTM	
Dibenz(a,h)Anthracene				EPA 8270		09/04 09/29	MTI	
Benzo(g,h,i)Perylene	0.230	UK	mg/ k g	EFA 02/0		07,0.07,67		
Sample Preparation				EPA 3050 Digest				
				ELA SOSO BIGGEO				
Total Metals Analysis ICP Screen, ICF				EPA	n/a			
	1900		mg/Kg	EPA 6010	, –	08/27 08/29	DFT	
Aluminum	56	U	mg/Kg	EPA 6010		08/27 08/29	DFL	
Antimony	5.6	Ü	mg/Kg	EPA 6010		08/27 08/29	DFI	
Arsenic Barium	19	-	mg/Kg	EPA 6010		08/27 08/29	DFL	
Barium Beryllium	2.8	U	mg/Kg	EPA 6010		08/27 08/29	DFL	
——————————————————————————————————————	2.8	Ü	mg/Kg	EPA 6010		08/27 08/29	DFL	
Cadmium Calcium	4650	•	mg/Kg	EPA 6010		08/27 08/29	DFI	
Chromium	4.1		mg/Kg	EPA 6010		08/27 08/29	DFL	
Cobalt	5.6	บ	mg/Kg	EPA 6010		08/27 08/29		
Copper	3.3	5	mg/Kg	EPA 6010		08/27 08/29		
Copper			3/ **3		į			





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COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES C

REPORT of ANALYSIS

EBB TO Chemlab Ref.# :93.4303-2 Client Sample ID :BTR-LF01-S01

Matrix :SOIL

5633 B ST ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium		5000 5.6 990 52 2.8 4.3 280 5.6 2.8 78 0.27 4.9	UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA EPA EPA EPA EPA EPA EPA EPA EPA EPA	6010 6010 6010 6010 6010 6010 6010 6010	08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27	08/29 08/29 08/29 08/29 08/29 08/29 08/29 08/29 08/29 08/29	DF: DF: DF: DF: DF: DF: DF: DF: DF: DF:
TOC, Soil	oropane Conzene	820		mg/Kg	· · · · · · · · · · · · · · · · · · ·	Ref Lab	ිසුක (දි.) උදුල වෙනුසන් කිරීම		

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See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



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See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518

hrs

Chemlab Ref.# Client Sample ID :BTR-LF01-S01 DUPLICATE

:93.4303-4

TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix

:SOIL

Client Name

:ICF KAISER ENGINEERING

WORK Order :70013

Ordered By

:RAY MORRIS

Report Completed :09/30/93

Project Name

:DEW LINE

Collected :08/21/93

Project#

:BARTER

@ 10:00 hrs Received :08/24/93 @ 12:00

PWSID :UA Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. SEE QC SUMMARY.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Sample Preparation				EPA 3050 Digest				
Total Metals Analysis				_				
ICP Screen, ICF				EPA	n/a			
Aluminum	1500		mg/Kg	EPA 6010	, _	08/27	08/29	DFL
Antimony	56	U	mg/Kg	EPA 6010			08/29	DFL
Arsenic	5.6	U	mg/Kg	EPA 6010			08/29	DFL
Barium	15		mg/Kg	EPA 6010			08/29	DFL
Beryllium	2.8	U	mg/Kg	EPA 6010			08/29	DFL
 Cadmium	2.8	U	mg/Kg	EPA 6010			08/29	DFL
Calcium	3600		mg/Kg	EPA 6010		08/27		DFL
Chromium	3.2		mg/Kg	EPA 6010		08/27		DFL
Cobalt	5.6	U	mg/Kg	EPA 6010		08/27		DFL
Copper	3.1		mg/Kg	EPA 6010		08/27		DFL
Iron	5 200		mg/Kg	EPA 6010		08/27		DFL
Lead	5.6	U	mg/Kg	EPA 6010		08/27		DFL
Magnesium	920		mg/Kg	EPA 6010			08/29	DFL
Manganese	56		mg/Kg	EPA 6010		08/27		DFL
Molybdenum	2.8	U	mg/Kg	EPA 6010		08/27		DFL
Nickel	4.3		mg/Kg	EPA 6010		08/27		DFL
Potassium	28 0	U	mg/Kg	EPA 6010		08/27		DFL
Selenium	5.6	U	mg/Kg	EPA 6010		08/27		DFL
Silver	2.8	U	mg/Kg	EPA 6010		08/27	08/29	DFL
Sodium	5 9		mg/Kg	EPA 6010		08/27		DFL
Thallium	0.28	U	mg/Kg	EPA 7841		08/26		KAW
Vanadium	4.2		mg/Kg	EPA 6010		08/26		KAW
Zinc	11		mg/Kg	EPA 6010		08/26		KAW

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not AnalyzedLT = Less Than

GT = Greater Than



SGS Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-3

Client Sample ID :BTR-LF01-S01 SPIKE Matrix

:SOIL

Client Name :ICF KAISER ENGINEERING

Ordered By :RAY MORRIS Project Name :DEW LINE Project#

PWSID :UA

:BARTER

WORK Order

:70013 Report Completed :09/30/93

Collected

:08/21/93

@ 10:00 hr: Received :08/24/93 @ 12:00 hr: Technical Director:STEPHEN C. EDE

5633 B STREET

ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. FOR SPIKE CONCENTRATION,

SEE QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.476		mg/Kg	EPA 8260		08/25	09/05	SGN
Bromobenzene	0.025	U	mg/Kg	EPA 8260			09/05	SGN
Bromochloromethane	0.025	U	mg/Kg	EPA 8260			09/05	SGY
Bromodichloromethane	0.025	U	mg/Kg	EPA 8260			09/05	SGM.
Bromoform	0.025	U	mg/Kg	EPA 8260			09/05	SGM.
Bromomethane	0.025	U	mg/Kg	EPA 8260			09/05	SGM
n-Butylbenzene	0.025	U	mg/Kg	EPA 8260			09/05	GM
sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260			09/05	M
tert-Butylbenzne	0.025	Ü	mg/Kg	EPA 8260			09/05	SGM
Carbon Tetrachloride	0.025	Ü	mg/Kg	EPA 8260			09/05	SGM
Chlorobenzene	0.465		mg/Kg	EPA 8260			09/05	SGM
Chloroethane	0.025	U	mg/Kg	EPA 8260			09/05	SGM
Chloroform	0.025	U	mg/Kg	EPA 8260			09/05	SGM
Chloromethane	0.025	U	mg/Kg	EPA 8260			09/05	SGM
2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260			09/05	SGM
4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260			09/05	SGM
Dibromochloromethane	0.025	U	mg/Kg	EPA 8260			09/05	SGM
12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260			09/05	SGM
1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260			09/05	SGM
Dibromomethane	0.025	Ū	mg/Kg	EPA 8260			09/05	SGM
1,2-Dichlorobenzene	0.025	Ū	mg/Kg	EPA 8260			09/05	SGM
1,3-Dichlorobenzene	0.025	Ü	mg/Kg	EPA 8260			09/05	SGM
1,4-Dichlorobenzene	0.025	Ū	mg/Kg	EPA 8260		08/25		SGM
Dichlorodifluoromethane	0.025	Ü	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/25		S GM
1,2-Dichloroethane	0.025	Ū	mg/Kg	EPA 8260		08/25		S GM
1,1-Dichloroethene	0.306		mg/Kg	EPA 8260		08/25		SGM
cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/25		SGM
trans1,2-Dichloroethene	0.025	Ū	mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloropropane	0.025	Ū	mg/Kg	EPA 8260		08/25		SGM
1,3-Dichloropropane	0.025	Ü	mg/Kg	EPA 8260		08/25		SGM
2,2-Dichloropropane	0.025	Ū	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/25		SGM
Ethylbenzene	0.025	Ū	mg/Kg	EPA 8260		08/25		SGM
Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/25		SGM
Isopropylbenzene	0.025	U	mg/Kg	EPA 8260		08/25		M
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ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4303-3 ANCHORAGE, AK 99518 Client Sample ID :BTR-LF01-S01 SPIKE TEL: (907) 562-2343 Matrix :SOIL FAX: (907) 561-5301 p-Isopropyltoluene 0.025 U mg/Kg EPA 8260 08/25 09/05 SGi Methylene Chloride 0.025 U EPA 8260 08/25 09/05 mg/Kg SGI Napthalene 0.025 U EPA 8260 08/25 09/05 mg/Kg SGI n-Propylbenzene 0.025 U EPA 8260 08/25 09/05 mg/Kg SGI Styrene 0.025 U EPA 8260 08/25 09/05 mg/Kg SGI 1112-Tetrachloroethane 0.025 11 EPA 8260 mg/Kg 08/25 09/05 SGI 1122-Tetrachloroethane 0.025 U mg/Kg EPA 8260 08/25 09/05 SGI Tetrachloroethene 0.025 11 EPA 8260 08/25 09/05 mg/Kg SGN Toluene 0.453 mq/Kq **EPA** 8260 08/25 09/05 SGN 1,2,3-Trichlorobenzene 0.025 U EPA 8260 08/25 09/05 mg/Kg SGF 1,2,4-Trichlorobenzene 0.025 mg/Kg EPA 8260 08/25 09/05 SGI 1,1,1-Trichloroethane 0.025 mg/Kg EPA 8260 08/25 09/05 SGM 1,1,2-Trichloroethane 0.025 U mg/Kg EPA 8260 08/25 09/05 SGN. Trichloroethene 0.411 **EPA** 8260 mg/Kg 08/25 09/05 SGM Trichlorofluoromethane 0.025 H EPA 8260 mg/Kg 08/25 09/05 SGN: 1,2,3-Trichloropropane 0.025 EPA 8260 U mg/Kg 08/25 09/05 SGE 1,2,4-Trimethylbenzene 0.025 U . mg/Kg EPA 8260 08/25 09/05 SGM. 1,3,5-Trimethylbenzene 0.025 U EPA 8260 ma/Ka 08/25 09/05 SGM. Vinyl Chloride 0.025 U mg/Kg EPA 8260 08/25 09/05 SGM p+m-Xylene 0.025 U EPA 8260 mg/Kg 08/25 09/05 SGM o-Xylene 0.025 EPA 8260 mg/Kg 08/25 09/05 SGM Semivolatile Organics EPA 8270 Phenol 1.79 EPA 8270 mg/Kg 09/04 09/29 MTT bis(2-Chloroethyl)ether 0.230 U **EPA** 8270 mg/Kg 09/04 09/29 MTT 2-Chlorophenol 1.72 mg/Kg EPA 8270 09/04 09/29 MTT 1,3-Dichlorobenzene 0.230 U mg/Kg **EPA** 8270 09/04 09/20 MTT 1,4-Dichlorobenzene 1.71 **EPA** 8270 09/04 09/2: mg/Kg Benzyl Alcohol 2.00 U mq/Kq EPA 8270 09/04 09/29 1,2-Dichlorobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 2-Methylphenol 0.230 mq/Kg EPA 8270 09/04 09/29 MTT bis(2-Chloroisopropyl)e 0.230 U EPA 8270 mg/Kg 09/04 09/29 MTT 4-Methylphenol 0.230 EPA 8270 09/04 09/29 mg/Kg MTT n-Nitroso-di-n-Propylam 1.94 EPA 8270 mg/Kg 09/04 09/29 MTT Hexachloroethane 0.230 11 mg/Kg EPA 8270 09/04 09/29 MTT Nitrobenzene 0.230 U **EPA** 8270 mg/Kg 09/04 09/29 MTT Isophorone 0.230 U mg/Kg **EPA** 8270 09/04 09/29 MTT 2-Nitrophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dimethylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Benzoic Acid 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT bis(2-Chloroethoxy)Meth 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2,4-Trichlorobenzene 1.99 EPA 8270 09/04 09/29 mq/Kq MTT Naphthalene 0.230 U ma/Ka EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U **EPA** 8270 09/04 09/29 mg/Kg MTT Hexachlorobutadiene 0.230 U **EPA** 8270 mg/Kg 09/04 09/29 MTT 4-Chloro-3-Methylphenol 2.00 mg/Kg **EPA 8270** 09/04 09/29 MTT 2-Methylnaphthalene 0.230 H **EPA** 8270 09/04 09/29 mg/Kg MTT Hexachlorocyclopentadie 0.230 U **EPA** 8270 09/04 09/29 mg/Kg MTT 2,4,6-Trichlorophenol 0.230 U EPA 8270 09/04 09/29 mg/Kg MTT



0.230

U

2,4,5-Trichlorophenol

EPA 8270

09/04 09/29

MTT

mg/Kg



ENVIRONMENTAL LABORATORY SERVICES

:93.4303-3

Chemlab Ref.#

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518

Client Sample ID :BTR-LF01-S0	1 CDTIM					ANCHORAGE, AK	99518
Matrix :SOIL	1 SPIKE	•				TEL: (907) 56 FAX: (907) 56	
Hatrix .soil						(00.7)	
2-Chloronaphthalene	0.230	Ŭ	mg/Kg	EPA 8270		09/04 09/29	MTT
2-Nitroaniline	0.230	Ü	mg/Kg	EPA 8270		09/04 09/29	MT
Dimethylphthalute	0.230	Ü	mg/Kg	EPA 8270		09/04 09/29	MTT
Acenaphthylene	0.230	Ü	mg/Kg	EPA 8270		09/04 09/29	MTT
2,6-Dinitrotoluene	0.230	Ü	mg/Kg	EPA 8270		09/04 09/29	MTT
3-Nitroaniline	0.230	Ü	mg/Kg	EPA 8270		09/04 09/29	MTT
Acenaphthene	2.00	-	mg/Kg	EPA 8270		09/04 09/29	MTI
2,4-Dinitrophenol	0.230	U	mg/Kg	EPA 8270		09/04 09/29	HTI
4-Nitrophenol	2.25		mg/Kg	EPA 8270		09/04 09/29	MTI
Dibenzofuran	0.230	U	mg/Kg -			09/04 09/29	MTT
2,4-Dinitrotoluene	2.02		mg/Kg	EPA 8270		09/04 09/29	MTT
Diethylphthalate	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
4-Chlorophenyl-Phenylet	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Fluorene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
4-Nitroaniline	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
4,6-Dinitro-2-Methylphe	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
n-Nitrosodiphenylamine	0.230	IJ	mg/Kg	EPA 8270		09/04 09/29	MTT
4-Bromophenyl-Phenyleth	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Hexachlorobenzene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Pentachlorophenol	2.71		mg/Kg	EPA 8270		09/04 09/29	MTT
Phenanthrene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Anthracene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	M. white
di-n-Butylphthalate	2.33		mg/Kg	EPA 8270		09/04 09/29	
Fluoranthene Pyrene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	Tri.
Butylbenzylphthalate	2.08		mg/Kg	EPA 8270		09/04 09/29	MTT
3,3-Dichlorobenzidine	0.230 0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(a)Anthracene	0.230	U U	mg/Kg	EPA 8270		09/04 09/29	MTT
Chrysene	0.230	Ü	m g/K g m g/K g	EPA 8270 EPA 8270		09/04 09/29	MTT
bis(2-Ethylhexyl)Phthal	1.00	Ü	mg/Kg	EPA 8270		09/04 09/29 09/04 09/29	MTT MTT
di-n-Octylphthalate	0.230	Ü	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(b)Fluoranthene	0.230	Ü	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(k)Fluoranthene	0.230	Ū	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(a)Pyrene		Ū	mg/Kg	EPA 8270		09/04 09/29	MTT
Indeno(1,2,3-cd)Pyrene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Dibenz(a,h)Anthracene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Benzo(g,h,i)Perylene	0.230	U	mg/Kg	EPA 8270		09/04 09/29	MTT
Sample Preparation				EPA 3050 Digest		•	
Total Metals Analysis				_			
ICP Screen, ICF				EPA	n/a		
Aluminum	1900		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	98		mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	100		m g/K g	EPA 6010		08/27 08/29	DFL
Barium	130		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium Cadmium	41		mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	52 5 67 0		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	110		mg/Kg mg/Kg	EPA 6010 EPA 6010		08/27 08/29	DFL
Cobalt	100		mg/Kg	EPA 6010		08/27 08/29 08/27 08/29	DFL DFL
Copper	110		mg/Kg	EPA 6010		08/27 08/29	UP L
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ENVIRONMENTAL LABORATORY SERVICES

5 N 2 E - 9 2 B		DET	PORT of ANA	LYSIS			
Chemlab Ref.# Client Sample ID Matrix	:93.4303-3 :BTR-LF01-S01 :SOIL	SPIKE	ONI OI AMA	5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301			
Iron		5500	mg/Kg	EPA 6010	08/27 08/29	DFI	
Lead		9 8	mg/Kg	EPA 6010	08/27 08/29	DFI	
Magnesium		2100	mg/Kg	EPA 6010	08/27 08/29	DFI	
Manganese		170	mg/Kg	EPA 6010	08/27 08/29	DFI	
Molybdenum		100	mg/Kg	EPA 6010	08/27 08/29	DFT	
Nickel		110	mg/Kg	EPA 6010	08/27 08/29	DFT	
Potassium		1200	mg/Kg	EPA 6010	08/27 08/29	DFI	
Selenium		100	mg/Kg	EPA 6010	08/27 08/29	DFI	
Silver		18	mg/Kg	EPA 6010	08/27 08/29	DFI	
Sodium		1200	mg/Kg _	EPA 6010	08/27 08/29	DFI	
Thallium		2.8	m g/K g	EPA 7841	08/26 08/28	KAV	
Vanadium		110	mg/Kg	EPA 6010	08/27 08/29	DFI	
Zinc		110	mg/Kg	EPA 6010	08/27 08/29	DFI	

See Special Instructions Above

* See Sample Remarks Above

d = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



SES Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-9

Client Sample ID :BTR-LF01-S01 SPIKE DUPLICATE

Matrix

:SOIL

WORK Order :70013

Report Completed :09/30/93

Collected :08/21/93 @ 10:00 hrs Received :08/24/93 @ 12:00 hrs

5633 B STREET

TEL: (907) 562-2343 FAX: (907) 561-5301

ANCHORAGE, AK 99518

Technical Director: STEPHEN, C. EDE

Released By :

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name Project#

PWSID

:DEW LINE :BARTER

:UA

Sample Remarks: SAMPLE COLLECTED BY:

M. LEMMA AND PETER M.G. FOR SPIKE CONCENTRATION

SEE QC PACKAGE. 8270: SAMPLE WAS SPIKED WITH 100 PPM SPIKE.

SAMPLE IS A SPIKE DUP FOR 8270/8260.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.482		mg/Kg	EPA 8260		09/25	09/05	SGM
	Bromopenzene	0.025	U	mg/Kg	EPA 8260			09/05	SGM
	Bromochloromethane	0.025	Ü	mg/Kg	EPA 8260			09/05	SGM
	Bromodichloromethane	0.025	Ŭ	mg/Kg	EPA 8260			09/05	SGM
	Bromoform	0.025	Ū	mg/Kg	EPA 8260			09/05	SGM
	Bromomethane	0.025	Ū	mg/Kg	EPA 8260			09/05	SGM
	n-Butylbenzene	0.025	Ū	mg/Kg	EPA 8260			09/05	M
	sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260			09/05	GM
	tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260			09/05	SGM
	Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260			09/05	SGM
	Chlorobenzene	0.480		mg/Kg	EPA 8260		08/25		SGM
	Chloroethane	0.025	Ū	mg/Kg	EPA 8260		08/25		SGM
	Chloroform	0.025	Ü	mg/Kg	EPA 8260		08/25		SGM
	Chloromethane	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	Dibromochloromethane	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/25	•	SGM
	Dichlorodifluoromethane	0.025	Ü	mg/Kg	EPA 8260		08/25	09/05	S GM
	1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,2-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,1-Dichloroethene	0.296		mg/Kg	EPA 8260		08/25	09/05	SGM
	cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
	trans1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	SGM
	1,2-Dichloropropane	0.025	Ü	mg/Kg	EPA 8260		08/25		SGM
	1,3-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/25	09/05	S GM
	2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/25		SGM
	1,1-Dichloropropene	0.025		mg/Kg	EPA 8260		08/25		SGM
	Ethylbenzene	0.025		mg/Kg	EPA 8260		08/25		SGM
}	Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/25	09/05	M



COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref. # :93.4303-9 Client Sample ID :BTR-LF01-SOI	57438 929						
Client Sample ID :BTR-LF01-SOI	Chemlah Ref # •93 4303 0	REP	ort of anal	YSIS		5600 D CT	DEST
Isopropylbenzene		COTIZE DI	Of T 63 mm		ANCH	ORAGE, AK	99518
Isopropylbenzene		SPIKE DU	PLICATE		T	EL: (907) 562	2-2343
P-Isopropyltoluene	.5012				FA	4X: (907) 561	-5301
P-Isopropyltoluene	Isopropylhenzene	0 025 11	/• •				
Methylene Chloride 0.025 Umg/Kg EPA 8250 08/25 09/05 SG Napthalene 0.025 Umg/Kg EPA 8260 08/25 09/05 SG n-Propylbenzene 0.025 Umg/Kg EPA 8260 08/25 09/05 SG Styrene 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1112-Tetrachloroethane 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1122-Tetrachloroethane 0.025 Umg/Kg EPA 8260 08/25 09/05 SG Tetrachloroethane 0.025 Umg/Kg EPA 8260 08/25 09/05 SG Toluene 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1,2,3-Trichlorobenzene 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1,1,1-Trichloroethane 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1,1,1-Trichloroethane 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1,1,2-Trichloroethane 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1,1,2-Trichloroethane 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1,1,1-Trichloroethane 0.025 Umg/Kg EPA 8260 08/25 09/05 SG 1,2-Trichloroethane							S Gì
Napthalene							SGI
n-Propylbenzene					08/25	09/05	SGN
Styrene					08/25	09/05	SGI
1112-Tetrachloroethane					08/25	09/05	1 0 2
1122-Tetrachloroethane					08/25	09/05	SGM
Tetrachloroethene Tolu					08/25	09/05	1 0 2
Toluene 0.470 mg/Kg FPA 8260 08/25 09/05 SGR 1.2.4-Trichlorobenzene 0.025 U mg/Kg FPA 8260 08/25 09/05 SGR 1.2.4-Trichlorobenzene 0.025 U mg/Kg FPA 8260 08/25 09/05 SGR 1.1.1-Trichlorobenzene 0.025 U mg/Kg FPA 8260 08/25 09/05 SGR 1.1.2-Trichlorobenzene 0.025 U mg/Kg FPA 8260 08/25 09/05 SGR Trichlorofiluromethane 0.025 U mg/Kg FPA 8260 08/25 09/05 SGR FPA 1.1.2-Trichloropenzene 0.025 U mg/Kg FPA 8260 08/25 09/05 SGR FPA 8270 09/04 09/29 MTT 8260 FPA 8270 09/04 09/29 MTT 8260 FPA 8270 09/04 09/29 MTT 8260 FPA 8270 09/04 09/29 MTT 8260 FPA 8270 09/04 09/29 MTT 8260 FPA 8270 09/04 09/29 MTT					08/25	09/05	SGY.
1.2.3-Trichlorobenzene					08/25	09/05	
1,2,4-Trichlorobenzene				EPA 8260			
1,1,1-Trichloroethane	1,2,3-IIICHIOFODENZENE			EPA 8260			
1.1.2-Trichloroethane	1,2,4-IIICHIOFODENZENE		m g/K g	EPA 8260			
Trichloroethene			m g/K g	EPA 8260			
Trichlorofluoromethane		_	mg/Kg	EPA 8260			
1,2,3-Trichloropropane			m g/K g	EPA 8260			
1,2,3 + Trimethylbenzene	171Chiororiuoromethane		mg/Kg	EPA 8260			
1,2,5-Trimethylbenzene	1,2,3-IFICNIOropropane		.m g/K g	EPA 8260			
Niny1 Chloride	1,2,4-irimethylbenzene			EPA 8260			
### Xylene	1,3,5-irimetnyipenzene			EPA 8260			
Semivolatile Organics				EPA 8260			
Semivolatile Organics Phenol							
Semivolatile Organics	O-xylene	0.025 U	mg/Kg	EPA 8260			
Phenol bis(2-Chloroethyl)ether 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Chlorophenol 1.60 mg/Kg EPA 8270 09/04 09/29 MTT 1,3-Dichlorobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,4-Dichlorobenzene 1.66 mg/Kg EPA 8270 09/04 09/29 MTT 1,4-Dichlorobenzene 1.66 mg/Kg EPA 8270 09/04 09/29 MTT 1,2-Dichlorobenzene 1.00 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2-Dichlorobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Chloroisopropyl)e 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.230 U mg/Kg EPA 8270 09/04 09/29 MTT	Semivolatile Organics						
bis(2-Chloroethyl)ether 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Chlorophenol 1.60 mg/Kg EPA 8270 09/04 09/29 MTT 1,3-Dichlorobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,4-Dichlorobenzene 1.66 mg/Kg EPA 8270 09/04 09/29 MTT 1,2-Dichlorobenzene 1.00 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2-Dichlorobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2-Dichlorobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitrobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1-Nitrobe	Phenol	1 63					
2-Chlorophenol 1.60 mg/kg EPA 8270 09/04 09/29 mTT 1,3-Dichlorobenzene 0.230 U mg/kg EPA 8270 09/04 09/29 mTT 1,4-Dichlorobenzene 1.66 mg/kg EPA 8270 09/04 09/29 mTT 1,4-Dichlorobenzene 1.66 mg/kg EPA 8270 09/04 09/29 mTT 1,2-Dichlorobenzene 0.230 U mg/kg EPA 8270 09/04 09/29 mTT 1,2-Dichlorobenzene 0.230 U mg/kg EPA 8270 09/04 09/29 mTT 2-Methylphenol 0.230 U mg/kg EPA 8270 09/04 09/29 mTT 4-Methylphenol 0.230 U mg/kg EPA 8270 09/04 09/29 mTT 4-Methylphenol 0.230 U mg/kg EPA 8270 09/04 09/29 mTT 4-Methylphenol 0.230 U mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.63 mg/kg EPA 8270 09/04 09/29 mTT 1.64 mg/kg EPA 8270 09/04 09/29 mTT 1.65 mg/kg EPA					09/04	09/29	MTT
1,3-Dichlorobenzene					09/04	09/29	MTT
1.4—Dichlorobenzene					09/04	09/29	MTT
Benzyl Alcohol 1.00 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2-Dichlorobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Methylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 0-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT n-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT Nitrobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1.50 mg/Kg EPA 8270 09/04 09/29 MT	1 4-Dichlorobenzene				09/04	09/29	MTT
1,2-Dichlorobenzene					09/04	09/29	MTT
2-Methylphenol					09/04	09/29	MTT
bis(2-Chloroisopropyl)e 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Methylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT n-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT Hexachloroethane 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Sophorone 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Isophorone 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Nitrophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Nitrophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dimethylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Benzoic Acid 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Benzoic Acid 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2,4-Trichlorobenzene 1.77 mg/Kg EPA 8270 09/04 09/29 MTT 1,2,4-Trichlorobenzene 1.77 mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chl			_		09/04	09/29	MTT
4-Methylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1.63 mg/Kg EPA 8270 09/04 09/29 MTT Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT Nitrobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Isophorone 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Nitrophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Nitrophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dimethylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Benzoic Acid 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Discrete Order of the property of the proper					09/04	09/29	MTT
n-Nitroso-di-n-Propylam 1.63 mg/Kg EPA 8270 09/04 09/29 MTT Hexachloroethane 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Nitrobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Isophorone 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Nitrophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dimethylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Benzoic Acid 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dichloroethoxy)Meth 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2,4-Trichlorobenzene 1.77 mg/Kg EPA 8270 09/04 09/29 MTT Naphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorobutadiene 0.230 U mg/Kg EPA 8270 <					09/04	09/29	MTT
Hexachloroethane 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Nitrobenzene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Isophorone 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Nitrophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dimethylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Benzoic Acid 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT bis(2-Chloroethoxy)Meth 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2,4-Trichlorobenzene 1.77 mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaph					09/04	09/29	MTT
Nitrobenzene	••				09/04	09/29	MTT
Isophorone							MTT
2-Nitrophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT					09/04	09/29	MTT
2,4-Dimethylphenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Benzoic Acid 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT bis(2-Chloroethoxy)Meth 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2,4-Trichlorobenzene 1.77 mg/Kg EPA 8270 09/04 09/29 MTT Naphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorobutadiene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Ch					09/04 (09/29	MTT
Benzoic Acid 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 0.230					09/04 (09/29	MTT
bis(2-Chloroethoxy)Meth 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2,4-Dichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2,4-Trichlorobenzene 1.77 mg/Kg EPA 8270 09/04 09/29 MTT Naphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorobutadiene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT					09/04 (09/29	MTT
2,4-Dichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1,2,4-Trichlorobenzene 1.77 mg/Kg EPA 8270 09/04 09/29 MTT Naphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorobutadiene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1.68 mg/Kg EPA 8270 09/04 09/29 MT							MTT
1,2,4-Trichlorobenzene 1.77 mg/Kg EPA 8270 09/04 09/29 MTT Naphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorobutadiene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 1.68 mg/Kg EPA 8270	^ 4 - 4 • • · · · · · · · · · · · · · · · · ·				09/04 (09/29	MTT
Naphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorobutadiene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4.4.6-Trichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2.4.6-Trichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT							MTT
4-Chloroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorobutadiene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2.4.6-Trichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT							
Hexachlorobutadiene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2.4.6-Trichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT	4						
4-Chloro-3-Methylphenol 1.68 mg/Kg EPA 8270 09/04 09/29 MTT 2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2.4.6-Trichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT	••						
2-Methylnaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2.4.6-Trichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT							
Hexachlorocyclopentadie 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT 2.4.6-Trichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MTT							
2.4.6-Trichlorophenol 0.230 U 09/04 09/29 MTT	**						
0.230 0 mg/kg EPA 8270 09/04 09/29 MTT							
	, -,	0.230 0	mg/kg	EPA 82/0	09/04 (9/29	MTT



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5533 B STREET Chemlab Ref.# :93.4303-9 ANCHORAGE, AK 99518 TEL: (907) 562-2343 Client Sample ID :BTR-LF01-S01 SPIKE DUPLICATE FAX: (907) 561-5301 Matrix :SOIL 2,4,5-Trichlorophenol 0.230 U mg/Kg EPA 8270 09/04 09/29 MT 2-Chloronaphthalene 0.230 U mg/Kg EPA 8270 09/04 09/29 MT. 2-Nitroaniline 0.230 U mg/Kg EPA 8270 09/04 09/29 MT. Dimethylphthalate 0.230 U mg/Kg EPA 8270 09/04 09/29 MT Acenaphthylene 0.230 U mg/Kg EPA 8270 09/04 09/29 MT. 0.230 09/04 09/29 2,6-Dinitrotoluene U mg/Kg EPA 8270 MT 3-Nitroaniline 0.230 П mg/Kg EPA 8270 09/04 09/29 MT 1.61 mq/Kq **EPA** 8270 09/04 09/29 Acenaphthene MT 2,4-Dinitrophenol 0.230 mg/Kg EPA 8270 09/04 09/29 MTI 4-Nitrophenol 2.00 mg/Kg -EPA 8270 09/04 09/29 MTI Dibenzofuran 0.230 U EPA 8270 09/04 09/29 MTI mq/Kq 09/04 09/29 2,4-Dinitrotoluene 1.64 EPA 8270 MTI mg/Kg Diethylphthalate 0.230 U 09/04 09/29 MTI mg/Kg EPA 8270 4-Chlorophenyl-Phenylet 0.230 EPA 8270 09/04 09/29 MTT [] mg/Kg Fluorene 0.230 09/04 09/29 TTM 11 EPA 8270 mg/Kg 4-Nitroaniline 09/04 09/29 MTT 0.230 11 mg/Kg EPA 8270 4,6-Dinitro-2-Methylphe 0.230 U EPA 8270 09/04 09/29 MTT mg/Kg n-Nitrosodiphenylamine 0.230 09/04 09/29 MTT mq/Kq EPA 8270 4-Bromophenyl-Phenyleth 0.230 09/04 09/29 MTT mg/Kg EPA 8270 Hexachlorobenzene 0.230 mg/Kg EPA 8270 09/04 09/29 MTT mg/Kg Pentachlorophenol 2.64 EPA 8270 09/04 09/29 MTT Phenanthrene 0.230 11 mg/Kg EPA 8270 09/04 09/29 MTT Anthracene 0.230 EPA 8270 09/04 09/29 mg/Kg di-n-Butylphthalate 1.93 EPA 8270 09/04 09/29 mg/Kg Fluoranthene 0.230 mg/Kg EPA 8270 09/04 09/29 U Pyrene 1.70 09/04 09/29 EPA 8270 mg/Kg Butylbenzylphthalate 0.230 Π EPA 8270 09/04 09/29 MTT mg/Kg 3,3-Dichlorobenzidine 0.230 U EPA 8270 09/04 09/29 MTT mg/Kg 0.230 09/04 09/29 Benzo(a)Anthracene U mg/Kg EPA 8270 MTT Chrysene 0.230 09/04 09/29 U mg/Kg EPA 8270 MTT bis(2-Ethylhexvl)Phthal 1.00 U EPA 8270 09/04 09/29 MTT ma/Ka di-n-Octylphthalate 0.230 U 09/04 09/29 MTT mq/Kq EPA 8270 Benzo(b)Fluoranthene 09/04 09/29 MTT 0.230 U mg/Kg EPA 8270 Benzo(k)Fluoranthene 0.230 U EPA 8270 09/04 09/29 MTT mg/Kg Benzo(a)Pyrene 0.230 U EPA 8270 09/04 09/29 MTT mg/Kg 0.230 Indeno(1,2,3-cd)Pyrene U EPA 8270 09/04 09/29 MTT mg/Kg 0.230 U 09/04 09/29 MTT Dibenz(a,h)Anthracene mg/Kg EPA 8270

0.230 U

Benzo(g,h,i)Perylene

UA = Unavailable

09/04 09/29

MTT

NA = Not Analyze

LT = Less Than





§565 Member of the SGS Group (Société Générale de Surveillance)

EPA 8270

mg/Kg

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-5 Client Sample ID :BTR-LF01-SD03

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

PWSID

:RAY MORRIS :DEW LINE

:BARTER

:UA

WORK Order Report Completed :11/03/93 Collected

:69965

:08/20/93 @ 11:44 hrs. **:08/**23/93 @ 13:30 hrs

Received Technical Director: STEPHEN C. EDE

Released By : July

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. 8270: HOLDING TIMES WERE EXCEEDED, SAMPLE NOT ANALIZED AS PER CLIENT.

Volatile Organics EPA 8260 Benzene	 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Bromobenzene					EPA 8260				
Bromochloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Bromochloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Bromodichloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Bromoform 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Bromoform 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Bromomethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH n-Butylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH n-Butylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH ert-Butylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH carbon Tetrachloride 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Carbon Tetrachloride 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Chlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Chlorotethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Chlorotethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Chlorotethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Chlorotethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH Chlorotethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichloropenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichloropenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichloropenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichloropenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KMH 1,2-Dichloropenzene 0.0		0.030	U	mg/kg			08/24	09/06	KWM
Bromochloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromodichloromethane Bromomethane Broad Bryta Bylobe Kwh Bromomethane Broad Bryta Bylobe Kwh Bromomethane Broad Bryta Bylobe Kwh Bromomethane Broad Bryta Bylobe Kwh Bromomethane Broad Bryta Bylobe Kwh Bromomethane Broad Bryta Bylobe Kwh Bromomethane Broa		0.030	U	mg/kg					
### Bromodichloromethane	Bromochloromethane	0.030	U	mg/kg					
### Bromorethane		0.030	U	mg/kg					
Bromomethane n-Butylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM esc-Butylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM tert-Butylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM carbon Tetrachloride 0.030 U mg/kg EPA 8260 08/24 09/06 KWM chlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM chlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM chloroform 0.030 U mg/kg EPA 8260 08/24 09/06 KWM chloroform 0.030 U mg/kg EPA 8260 08/24 09/06 KWM chloroform 0.030 U mg/kg EPA 8260 08/24 09/06 KWM chloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12Dibromochloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12Dibromosthane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12Dibromosthane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropenane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropenane 0.030 U mg/kg EPA 8260 08/2		0.030	U	mg/kg		•			
Sec-Butylbenzene	-	0.030	U	mg/kg					
sec-Butylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM tert-Butylbenzne 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Carbon Tetrachloride 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloroform 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloroform 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 4-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1bromochloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichlorocethane		0.030	U	mg/kg					
tert-Butylbenzne 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Carbon Tetrachloride 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloroform 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 4-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 4-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12Dibromochloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dithlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane		0.030	U	mg/kg					
Carbon Tetrachloride 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloroform 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Dibromochloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Dibromochloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12Dibromo3Chloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg		0.030	U	mg/kg					
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Chloroethane		0.030	U			±ur ⊕	•	•	
Chloroform 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Chloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 4-Chlorotoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Dibromochloromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12Dibromo3Chloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 12DibromoaChloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM	· · · · · · ·	0.030	U	mg/kg					
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12Dibromo3Chloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dibromoethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropopane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM		0.030	U						
1,2-Dibromoethane	12Dibromo3Chloropropane	0.030	U						
Dibromomethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Dichlorodifluoromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM cis-1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM trans1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM	1,2-Dibromoethane	0.030	Ū						
1,2-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,4-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Dichlorodifluoromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 0.1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 0.1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 0.2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 0.2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 0.3-Dichloropropane 0.030 U mg/kg EPA		0.030	U						
1,3-Dichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Dichlorobenzene 0.044 pg/kg EPA 8260 08/24 09/06 KWM Dichlorodifluoromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Cis-1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM trans1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM		0.030	U						
### Dichlorobenzene	1,3-Dichlorobenzene	0.030		mg/kg	EPA 8260				
Dichlorodifluoromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM cis-1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM trans1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM EPA 8260 08/24 09/06 KWM	4-Dichlorobenzene	0.044		mg/kg	EPA 8260		•		
1,1-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM cis-1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM trans1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM	Dichlorodifluoromethane	0.030	Ū	mg/kg					
1,2-Dichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM cis-1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM trans1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM		0.030	U	mg/kg					
1,1-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM cis-1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM trans1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM		0.030	U	mg/kg					
cis-1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM trans1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Hexachlorobutadiene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM		0.030	U -						
trans1,2-Dichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Hexachlorobutadiene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM		0.030	Ü	mg/kg					
1,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Hexachlorobutadiene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM		0.030	Ŭ	mg/kg	EPA 8260				
1,3-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Hexachlorobutadiene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM	1,2-Dichloropropane	0.030	U						
2,2-Dichloropropane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Hexachlorobutadiene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM	1,3-Dichloropropane	0.030	U						
1,1-Dichloropropene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Hexachlorobutadiene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM	2,2-Dichloropropane	0.030	U	mg/kg					
Ethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Hexachlorobutadiene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM	1,1-Dichloropropene	0.030	U						
Hexachlorobutadiene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM		0.030	U						
		0.030	U		.			-	
Isopropylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM	Isopropylbenzene	0.030	U						



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# 5633 B STREET :93.4286-5 ANCHORAGE, AK 99518 Client Sample ID :BTR-LF01-SD03 TEL: (907) 562-2343 Matrix :SOIL FAX: (907) 561-5301 p-Isopropyltoluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Methylene Chloride 0.030 U EPA 8260 mg/kg 08/24 09/06 KWM Napthalene 0.105 国际工 mg/kg EPA 8260 08/24 09/06 KWM n-Propylbenzene 0.030 mg/kg EPA 8260 08/24 09/06 KWM Styrene 0.030 mg/kg EPA 8260 08/24 09/06 KWM 1112-Tetrachloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1122-Tetrachloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Tetrachloroethene 0.030 U mq/kq EPA 8260 08/24 09/06 KWM Toluene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2,3-Trichlorobenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2,4-Trichlorobenzene 0.046 mg/kg EPA 8260 08/24 09/06 KWM 1,1,1-Trichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,1,2-Trichloroethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Trichloroethene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Trichlorofluoromethane 0.030 U mg/kg EPA 8260 08/24 09/06 KWM 1,2,3-Trichloropropane 0.030 U ma/ka EPA 8260 08/24 09/06 KWH 1,2,4-Trimethylbenzene 0.041 mmg/kg EPA 8260 08/24 09/06 KWM 1,3,5-Trimethylbenzene 0.030 U mg/kg EPA 8260 08/24 09/06 KWM Vinyl Chloride 0.030 U mq/kq EPA 8260 08/24 09/06 KWM p+m-Xylene 0.033 mg/kg EPA 8260 08/24 09/06 KWM o-Xylene 0.030 mg/kg EPA 8260 08/24 09/06 KWM Sample Preparation EPA 3050 Digest Total Metals Analysis ICP Screen, ICF n/a EPA Aluminum 3600 mg/Kg EPA 6010 08/31 09/02 DFL Antimony 64 U mg/Kg EPA 6010 08/31 09/02 DFL Arsenic 6.4 U mg/Kg EPA 6010 08/31 09/02 DFL Barium 76 mq/Kq EPA 6010 08/31 09/02 DFL Beryllium 3.2 U mg/Kg EPA 6010 08/31 09/02 DFL Cadmium 3.2 U EPA 6010 mg/Kg 08/31 09/02 DFL Calcium 10600 mg/Kg EPA 6010 08/31 09/02 DFL Chromium 6.6 mg/Kg EPA 6010 08/31 09/02 DFL Cobalt 6.4 U mg/Kg EPA 6010 08/31 09/02 DFL Copper 14 mg/Kg EPA 6010 08/31 09/02 DFL Iron 12000 mg/Kg 08/31 09/02 EPA 6010 DFL Lead 29 mg/Kg EPA 6010 08/31 09/02 DFL Magnesium 2700 mg/Kg EPA 6010 08/31 09/02 DFL Manganese 170 mg/Kg EPA 6010 08/31 09/02 DFL Molybdenum 3.2 mg/Kg EPA 6010 08/31 09/02 DFL Nickel 8.6 mg/Kg EPA 6010 08/31 09/02 DFL. Potassium 610 mg/Kg EPA 6010 08/31 09/06 DLG Selenium 64 mg/Kg EPA 6010 08/31 09/02 DFL Silver 3.2 mg/Kg EPA 6010 -- 08/31 09/02 DFL Sodium 160 mg/Kg EPA 6010 08/31 09/02 DLG Thallium 0.28 EPA 7841 mg/Kg 08/30 09/01 KAW Vanadium 11 mg/Kg **EPA** 6010 08/31 09/02 DFL Zinc 55 mg/Kg **EPA** 6010 08/31 09/02 DFL. See Special Instructions Above

J = Undetected, Reported value is the practical quantification limit.

See Sample Remarks Above

) = Secondary dilution.

SGS Member of the SGS Group (Société Générale de Surveillance)

UA = Unavailable

LT = Less Than

NA = Not Analyzed

GT = Greater Than



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR-LF01-SW03

:93.4285-2

Matrix

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

WORK Order

:69963

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name

:DEW LINE :BARTER

:UA

Report Completed :09/14/93

Project# PWSID

Collected

:08/20/93 @ 11:44 hrs

Received :08/23/93 @ 13:30 hrs Technical Director:STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		00/21	00 (04	
Bromobenzene	0.0010	Ū	mg/L	EPA 8260		00/31	08/31	KWM
Bromochloromethane	0.0010	Ū	mg/L	EPA 8260		00/31	08/31	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		00/31	08/31 08/31	KWH
Bromoform	0.0010	Ü	mg/L	EPA 8260			08/31	KWH
Bromomethane	0.0010	Ū	mg/L	EPA 8260		08/31	00/31	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	00/31	KWH
 sec-Butylbenzene	0.0010	Ū	mg/L	EPA 8260		08/31		KWH
tert-Butylbenzne	0.0010	Ū	mg/L	EPA 8260		08/31		KWH
Carbon Tetrachloride	0.0010	Ü	mg/L	EPA 8260		08/31		KWH
Chlorobenzene	0.0010	Ū	mg/L	EPA 8260		08/31	00/31	KWM
Chloroethane	0.0010	Ū	mg/L	EPA 8260		08/31	00/31	KWH
Chloroform	0.0010	Ü	mg/L	EPA 8260		08/31		KWH
Chloromethane	0.0010	U	mg/L	EPA 8260		08/31		KWM
2-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260		08/31	00/31	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31		KWH
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/31		KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/31		KWM
1.2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/31	00/31	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/31	00/31	KWM KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31		KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31		KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31		KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/31		KWM
1.1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/31		KWM
la Dichloroethane	0.0039		mg/L	EPA 8260		08/31		KWM
1.1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31		KWH
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31		KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31		KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31		KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31		KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31		KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/31		KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/31		KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/31		KWM
 Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/31		KWM
Isopropyltoluene	0.0017		mg/L	EPA 8260		08/31		KWM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-2 Client Sample ID :BTR-LF01-SW03

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix	:WATER						F	FAX: (907) 5	61-5301
Methylene Ch	nloride	0.0010	U	mg/L	EPA	8260	08/31	08/31	KW
Napthalene		0.0010	Ü	mg/L	EPA	8260		08/31	KW
n-Propylben:	zene	0.0010	U	mg/L	EPA	8260	08/31	08/31	KW
Styrene	_	0.0010	U	mg/L	EPA	8260		08/31	KW
1112-Tetract	nloroethane	0.0010	Ü	mg/L	EPA	8260		08/31	KW
1122-Tetraci		0.0010	Ü	mg/L	EPA	8260		08/31	KW
Tetrachloro	ethene	0.0010	U	mg/L	EPA	8260		08/31	KW
Toluene		0.0010	U	mg/L	EPA	8260		08/31	KW
1,2,3-Trich	lorobenzene	0.0010	U	mg/L	EPA	8260	08/31	08/31	KW
1,2,4-Trich	Lorobenzene	0.0010	U	mg/L	EPA	8260	08/31	08/31	KW
1,1,1-Trich	Loroethane	0.0010	U	mg/L	EPA	8260		08/31	KW
1,1,2-Trich]	loroethane	0.0010	Ü	mg/L		8260		08/31	KW
Trichloroeth		0.0010	U	mg/L		8260	08/31	08/31	KW
Trichloroflu	oromethane	0.0010	U	mg/L		8260	08/31	08/31	KW
1,2,3-Trichl	loropropane	0.0010	Ü	mg/L		8260	08/31	08/31	KW
1,2,4-Trimet	hylbenzene	0.0010	Ū	mg/L		8260	08/31	08/31	KW
1,3,5-Trimet	hylbenzene	0.0010	Ü	mg/L		8260		08/31	KW.
Vinyl Chlori	ide	0.0010	Ū	mg/L		8260		08/31	KW.
p+m-Xylene		0.0010	Ü	mg/L		8260		08/31	KW
o-Xylene		0.0010	Ü	mg/L		8260		08/31	KW
Semivolatile	e Organics				EPA	8270			
Phenol	3	0.022	U	mg/L		8270	08/27	08/29	
bis(2-Chlore	ethyl)ether	0.022	Ü	mg/L	EPA			08/29	UIT.
2-Chloropher	nol	0.022	Ū	mg/L	EPA			08/29	HT
1,3-Dichloro	benzene	0.022	Ū	mg/L	EPA			08/29	MT
1,4-Dichloro	benzene	0.022	Ū	mg/L	EPA			08/29	MT.
Benzyl Alcoh	ol	0.022	Ū	mg/L	EPA			08/29	MT
1,2-Dichloro	benzene	0.022	Ü	mg/L	EPA			08/29	HT
2-Methylphen		0.022	Ū	mg/L	EPA			08/29	MT
bis(2-Chlore	oisopropyl)e	0.022	Ū	mg/L	EPA		08/27		HT
4-Methylphen		0.022	Ū	mg/L	EPA		08/27		MT
n-Nitroso-di	-n-Propylam	0.022	Ü	mg/L	EPA		08/27		MT
Hexachloroet	:hane	0.022	Ū	mg/L	EPA		08/27		MT
Nitrobenzene	;	0.022	Ü	mg/L	EPA		08/27		HT
Isophorone		0.022	Ū	mg/L	EPA		08/27		MT
2-Nitropheno		0.022	Ü	mg/L	EPA		08/27		MT
2,4-Dimethyl	.phenol	0.022	U	mg/L	EPA		08/27		MTT
Benzoic Acid		0.022	U	mg/L	EPA		08/27		MT
bis(2-Chloro	ethoxy)Meth	0.022	U	mg/L	EPA		08/27		MTT
2,4-Dichloro		0.022	U	mg/L	EPA		08/27		MTI
1,2,4-Trichl	orobenzene	0.022	U	mg/L	EPA		08/27		MTT
Naphthalene		0.022	U	mg/L	EPA :		08/27		MTI
4-Chloroanil		0.022	Ü	mg/L	EPA		08/27		MTT
Hexachlorobu		0.022	U	mg/L	EPA (08/27		MTT
4-Chloro-3-M	ethylphenol	0.022	U	mg/L	EPA		08/27		MTI
2-Methylnaph		0.022	Ü	mg/L	EPA :		08/27		MTI
Hexachlorocy		0.022	Ü	mg/L	EPA (8270	08/27		MTT
2,4,6-Trichl		0.022	U	mg/L	EPA :		08/27		MTT
2,4,5-Trichl		0.022	U	mg/L	EPA (08/27		HTT
2-Chloronaph	thalene	0.022	U	mg/L	EPA :	8270	08/27		TI



COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

SINGS POP		REP(ORT of ANA	LYSIS			5633 B ST	REET
hemlab Ref.# :93.4285-			MM.DAD	ON QUALIFIEN			ORAGE. AK	_
Client Sample ID :BTR-LF01	-SW03	,					'EL: (907) 562 'AX: (907) 561	
Matrix :WATER		1	COMM!	ewi)				
0.016116	0 022	_,,▼	' V	PDA 0270	(19/27	08/29	MT
2-Nitroaniline	0.022	Ü	mg/L	EPA 8270 EPA 8270			08/29	MT.
Dimethylphthalate	0.022	Ü	mg/L				08/29	MTT
Acenaphthylene	0.022	U	mg/L	EPA 8270			08/29	MTI
2,6-Dinitrotoluene	0.022	Ü	mg/L	EPA 8270 EPA 8270			08/29	MTT
3-Nitroaniline	0.022	U	mg/L	EPA 8270 EPA 8270			08/29	MTT
Acenaphthene	0.022	U	mg/L	EPA 8270			08/29	MTT
2,4-Dinitrophenol	0.022	U	mg/L	EPA 8270 EPA 8270		-	08/29	MTI
4-Nitrophenol	0.022	U	mg/L	EPA 8270			08/29	MTT
Dibenzofuran	0.022	U	mg/L	EPA 8270			08/29	HTI
2,4-Dinitrotoluene	0.022	Ü	mg/L				08/29	MTI
Diethylphthalate	0.022	Ü	mg/L	EPA 8270 EPA 8270			08/29	MTI
4-Chlorophenyl-Phenylet	0.022	U	mg/L				08/29	MIT
Fluorene	0.022	U	mg/L	EPA 8270			08/29	MTI
4-Nitroaniline	0.022	Ü	mg/L	EPA 8270 EPA 8270			08/29	MTI
4,6-Dinitro-2-Methylphe	0.022	U	mg/L	EPA 8270 EPA 8270			08/29	MTI
n-Nitrosodiphenylamine	0.022 0.022	Ü	mg/L	EPA 8270			08/29	TTM
4-Bromophenyl-Phenyleth	0.022	U U	mg/L mg/L	EPA 8270			08/29	MTI
Hexachlorobenzene	0.022	U	mg/L	EPA 8270			08/29	MTT
Pentachlorophenol	0.022	Ü	mg/L	EPA 8270			08/29	MTI
Phenanthrene Anthracene	0.022	U	mg/L	EPA 8270			08/29	MTT
di-n-Butylphthalate	0.022	Ü	mg/L	EPA 8270			08/29	MTT
Fluoranthene	0.022	Ü	mg/L	EPA 8270			08/29	MTI
Pyrene	0.022	Ü	mg/L	EPA 8270			08/29	MTT
Butylbenzylphthalate	0.022	Ü	mg/L	EPA 8270			08/29	MT
3,3-Dichlorobenzidine	0.022		rom mg/L	EPA 8270			08/29	MTT
Benzo(a) Anthracene	0.022	บั	mg/L	EPA 8270			08/29	MT
Chrysene	0.022	Ü	mg/L	EPA 8270			08/29	MTT
bis(2-Ethylhexyl)Phthal	0.022	Ŭ	mg/L	EPA 8270			08/29	MT
di-n-Octylphthalate	0.022	Ŭ	mg/L	EPA 8270			08/29	MT
Benzo(b)Fluoranthene	0.022	Ŭ	mg/L	EPA 8270			08/29	MTT
Benzo(k)Fluoranthene	0.022	Ü	mg/L	EPA 8270			08/29	MTT
Benzo(a)Pyrene	0.022	Ŭ	mg/L	EPA 8270			08/29	MT.
Indeno(1,2,3-cd)Pyrene	0.022	Ü	mg/L	EPA 8270			08/29	MT.
Dibenz(a,h)Anthracene	0.022	Ü	mg/L	EPA 8270			08/29	MT".
Benzo(g,h,i)Perylene	0.022	Ū	mg/L	EPA 8270			08/29	MT.
BC1120 (9/11/17/101/120110			3, _					
Total Metals Analysis				-				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.18		mg/L	EPA 6010			3 08/30	DL
Antimony	0.1	U	mg/L	EPA 6010			3 08/30	DL
Arsenic	0.1	U	mg/L	EPA 6010			3 08/30	DL
Barium	0.12		mg/L	EPA 6010			08/30	DL
Beryllium	0.05	U	mg/L	EPA 6010			3 08/30	DL
Cadmium	0.05	U	mg/L	EPA 6010			3 08/30	DL
Calcium	130		mg/L	EPA 6010			3 08/30	DL
Chromium	0.05	U	mg/L	EPA 6010			3 08/30	DL:
Cobalt	0.1	U	mg/L	EPA 6010			3 08/30	DL
Copper	0.05	U	mg/L	EPA 6010			3 08/30	DL
Iron	15		mg/L	EPA 6010			08/30	DL:
Lead	0.1	U	mg/L	EPA 6010		08/28	3 08/30	DL
	1974°				i.			





ENVIRONMENTAL LABORATORY SERVICES

	ENVIRONMENTAL L	ABORATOTT GETT			
N 4 N 28 100		REPORT of ANALY	SIS		5633 B STREET ANCHORAGE, AK 99518
	:93.4285-2 ID :BTR-LF01-SW :WATER	- 0			TEL: (907) 562 FAX: (907) 56 08/28 08/30 DLI
Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc		55 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.050 U mg/L 0.050 U mg/L 0.050 U mg/L 0.050 U mg/L	EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010		08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL: 08/28 08/30 DL:
ICP Screen Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenu Nickel Potassium Selenium Silver Sodium Thallium Vanadium	m	0.1 U mg/L 0.1 U mg/L 0.1 U mg/L 0.089 mg/L 0.05 U mg/L 0.05 U mg/L 130 mg/L 0.05 U mg/L 0.05 U mg/L 0.1 U mg/L 0.1 U mg/L 0.1 U mg/L 0.24 mg/L 0.1 U mg/L 0.24 mg/L 0.1 U mg/L 0.1 U mg/L 0.1 U mg/L 0.1 U mg/L 0.1 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L	EPA EPA 6010	n/a	08/28 08/30 DI DI DI DI DI DI DI DI DI DI DI DI DI
Zinc TOC, Non	ange	53.3-54.3 53.9 5(J.) mg/L	EPA 9060 EPA 9060 EPA 9060	n/a	08/31 08/31
naidue	oncentration Non-Filterable Filterable(TDS)	82 mg/L 1226 J (B) mg/L ongride by	EPA 160.2 EPA 160.1	500 Oru	08/24 08/24 08/26 08/27 Md: SWF 12.7-9
		1/2/94			

See Special Instructions Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

NA = Not Analyzed

LT = Less Than

GT = Greater



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4285-1 Client Sample ID :BTR-LF01-SW04

Matrix :WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

:ICF KAISER ENGINEERING WORK Order :69963 :RAY MORRIS Report Completed :09/14/93

Collected :08/20/93 @ 14:45 hr Received :08/23/93 @ 13:30

Technical Director: STEPHEN C. EDE

Released By :

Client Name

Ordered By Project Name

:DEW LINE :BARTER

Project# PWSID

:UA

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
	Volatile Organics				EPA 8260				
	Benzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	UTT
	Bromobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW.
	Bromocnloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW.
	Bromodichloromethane	0.0010	Ü	mg/L	EPA 8260		08/31	08/31	KW:
	Bromoform	0.0010	U	mg/L	EPA 8260		08/31	00/31	KWI
	Bromomethane	0.0010	U	mg/L	EPA 8260		08/31		KWi
	n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31		KWI
	sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31		KWI
	tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
	Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
_	Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/31		KWI
	Chloroethane	0.0010	U	mg/L	EPA 8260		08/31		KWI
	Chloroform	0.0010	U	mg/L	EPA 8260		08/31		KW
	Chloromethane	0.0010	U	mg/L	EPA 8260		08/31		KWP
	2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31		KW
	4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/31		KW
	Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/31		KW
	12Dibromo3Chloropropane	0.0010	Ū	mg/L	EPA 8260		08/31		KWI
	1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/31		KMI
	Dibromomethane	0.0010	U	mg/L	EPA 8260		08/31		KW
	1,2-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/31		KW
	1,3-Dichloropenzene	0.0010	IJ	mg/L	EPA 8260		08/31		KWI
	1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31		KWI
	Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/31		KWP
	1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/31		KWE
	1.2=Dichloroethane	0.0039		mg/L	EPA 8260		08/31		KWM
	1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31		KWE
	cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31		KWM
	trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31		KWM
	1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31		KWM
	1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31		KWM
	2,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/31		KWM
	1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/31		KWM
	Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/31		KWM
	Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/31		KWM
	Isopropylbenzene	0.0010	ប	mg/L	EPA 8260		08/31		KWM
	p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/31		KWM



ENVIRONMENTAL LABORATORY SERVICES



17422 m.a		DEDO	DT of ANI	NE VOTO			
Chemlab Ref.# :93.4285-1		KEPU	RT of ANI	ALISIS		5633 B S	
Client Sample ID :BTR-LF01-SW	0.4					ORAGE. AK	
	04					TEL: (907) 56 FAX: (907) 56	
Matrix :WATER					•	~A. (301) 30	11.3301
Methylene Chloride	0 0010		/7	FFD 0360	20.424		
	0.0010	Ü	mg/L	EPA 8260		08/31	KWI
Napthalene	0.0010	Ü	mg/L	EPA 8260		08/31	KWI:
n-Propylbenzene	0.0010	U	mg/L	EPA 8260		08/31	KWP
Styrene	0.0010	U	mg/L	EPA 8260		08/31	KWE
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWP
1122-Tetrachloroethane	0.0010	U	mg/L	ETPA 8260	08/31	08/31	KWP:
Tetrachloroethene	0.0010	U	mg/L	EFA 8260	08/31	08/31	KWE.
Toluene	0.0025		mg/L	EPA 8260	08/31	08/31	KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
1,1,1-Trichloroethane	0.0010	Ū	mg/L	EPA 8260		08/31	KWM
1,1,2-Trichloroethane	0.0010	Ü	mg/L	EPA 8260		08/31	KWM
Trichloroethene	0.0010		mg/L	EPA 8260			
Trichlorofluoromethane	0.0010	Ü				08/31	KWM
1,2,3-Trichloropropane			mg/L	EPA 8260		08/31	KWM
	0.0010	Ü	mg/L	EPA 8260		08/31	KWM
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260		08/31	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260		08/31	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260		08/31	KWM
p+m-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KWM
							_
Semivolatile Organics				EPA 8270			
Phenol	0.020	U	mg/L	EPA 8270	08/26	09/03	
bis(2-Chloroethyl)ether	0.020	U	mg/L	ETPA 8270	08/26	09/03	GV
2-Chlorophenol	0.020	U	mg/L	EPA 8270		09/03	GV
1,3-Dichlorobenzene	0.020	U	mg/L	EPA 8270		09/03	GV
1,4-Dichlorobenzene	0.020	U	mg/L	EPA 8270		09/03	GV
Benzyl Alcohol	0.020	Ü	mg/L	EPA 8270		09/03	G V
1,2-Dichloropenzene	0.020	Ū	mg/L	EPA 8270		09/03	G V
2-Methylphenol	0.020	Ü	mg/L	EPA 8270		09/03	G V
bis(2-Chloroisopropyl)e	0.020	Ū	mg/L	EPA 8270		09/03	G V
4-Methylphenol	0.020	Ü	mg/L	EPA 8270		09/03	G V
n-Nitroso-di-n-Propylam	0.020	Ü	mg/L	EPA 8270		09/03	G V
Hexachloroethane	0.020	Ü		EPA 8270			
Nitrobenzene	0.020	Ü	mg/L			09/03	. GV
	0.020	-	mg/L	EPA 8270		09/03	G V
Isophorone		U	mg/L	EPA 8270		09/03	G V
2-Nitrophenol	0.020	Ü	mg/L	EPA 8270		09/03	GV
2,4-Dimethylphenol	0.020	Ü	mg/L	EPA 8270		09/03	G V
Benzoic Acid	0.020	Ü	mg/L	EPA 8270		09/03	G V
bis(2-Chloroethoxy)Meth	0.020	U	mg/L	EPA 8270		09/03	G V
2,4-Dichlorophenol	0.020	U	mg/L	EPA 8270		09/03	GV
1,2,4-Trichlorobenzene	0.020	Ü	mg/L	EPA 8270	08/26	09/03	G V
Naphthalene	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
4-Chloroaniline	0.020	U	mg/L	EPA 8270	08/26	09/03	GV
Hexachlorobutadiene	0.020	U	mg/L	EPA 8270		09/03	GV
4-Chloro-3-Methylphenol	0.020	U	mg/L	EPA 8270		09/03	GV
2-Methylnaphthalene	0.020	U	mg/L	EPA 8270		09/03	GV
Hexachlorocyclopentadie	0.020	U	mg/L	EPA 8270		09/03	G V
2,4,6-Trichlorophenol	0.020	Ü	mg/L	EPA 8270		09/03	Ğ V
2,4,5-Trichlorophenol	0.020	Ü	mg/L	EPA 8270		09/03	
2-Chloronaphthalene	0.020	Ü	mg/L	EPA 8270		09/03	
		_	5, 🚨	<u> </u>	33, 20	,	



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4285-1 5633 B STREET Client Sample ID :BTR-LF01-SW04 ANCHORAGE, AK 99518 TEL: (907) 562-2343 Matrix :WATER FAX: (907) 561-5301 2-Nitroaniline 0.020 U mg/L **EPA** 8270 08/26 09/03 G Dimethylphthalate 0.020 U mg/L EPA 8270 08/26 09/03 G Acenaphthylene 0.020 U mg/L **EPA** 8270 08/26 09/03 G 2,6-Dinitrotoluene 0.020 U **EPA** 8270 mg/L 08/26 09/03 G. 3-Nitroaniline 0.020 U mg/L **EPA** 8270 08/26 09/03 G. Acenaphthene 0.020 [] mg/L EPA 8270 08/26 09/03 G. 2,4-Dinitrophenol 0.020 U mg/L **EPA** 8270 08/26 09/03 G. 4-Nitrophenol 0.020 U mg/L EPA 8270 08/26 09/03 G Dibenzofuran 0.020 U mg/L **EPA** 8270 08/26 09/03 G 2.4-Dinitrotoluene 0.020 Ü mg/L EPA 8270 08/26 09/03 G Diethylphthalate 0.020 u mg/L **EPA** 8270 08/26 09/03 G: 4-Chlorophenyl-Phenylet 0.020 U mg/L EPA 8270 08/26 09/03 G١ Fluorene 0.020 U mq/L EPA 8270 08/26 09/03 G٦ 4-Nitroaniline 0.020 U mg/L EPA 8270 08/26 09/03 4,6-Dinitro-2-Metnyipne G1 0.020 U mg/L EPA 8270 08/26 09/03 G١ n-Nitrosodiphenylamine 0.020 U EPA 8270 mg/L 08/26 09/03 4-Bromophenyl-Phenyleth G٦ 0.020 U mg/L EPA 8270 08/26 09/03 G٦ Hexachlorobenzene 0.020 U mg/L EPA 8270 08/26 09/03 G1 Pentachlorophenol 0.020 U EPA 8270 mg/L 08/26 09/03 G_{I} Phenanthrene 0.020 U mg/L **EPA** 8270 08/26 09/03 G٧ Anthracene 0.020 U mg/L **EPA** 8270 08/26 09/03 GV di-n-Butylphthalate 0.020 U mq/L **EPA** 8270 08/26 09/03 GV. Fluoranthene 0.020 U EPA 8270 mg/L 08/26 09/03 GV. Pyrene 0.020 U mq/L **EPA** 8270 08/26 09/03 GV. Butylbenzylphthalate 0.020 U mg/L EPA 8270 08/26 09/03 GV 3,3-Dichlorobenzidine 0.020 U mg/L EPA 8270 08/26 09/03 GV Benzo(a)Anthracene 0.020 U mg/L **EPA** 8270 08/26 09/03 GV Chrysene 0.020 U mg/L EPA 8270 08/26 09/03 GV bis(2-Ethylhexyl)Phthal 0.020 U mq/L EPA 8270 08/26 09/03 GV di-n-Octylphthalate 0.020 U mq/L EPA 8270 08/26 09/03 GV Benzo(b)Fluoranthene 0.020 U mg/L EPA 8270 08/26 09/03 GV Benzo(k)Fluoranthene 0.020 U mg/L EPA 8270 08/26 09/03 GV Benzo(a)Pyrene 0.020 U mq/L EPA 8270 08/26 09/03 GV Indeno(1,2,3-cd)Pyrene 0.020 U mg/L EPA 8270 08/26 09/03 GV Dibenz(a,h)Anthracene 0.020 U mg/L EPA 8270 08/26 09/03 GV Benzo(g,h,i)Perylene 0.020 mg/L **EPA** 8270 08/26 09/03 GV Total Metals Analysis ICP Screen, ICF EPA n/a Aluminum 0.1 Ħ **EPA** 6010 mg/L 08/28 08/30 DLG Antimony 0.1 U mg/L **EPA** 6010 08/28 08/30 DLG Arsenic 0.1 11 mg/L **EPA** 6010 08/28 08/30 DLG Barium 0.12 **EPA** 6010 mg/L 08/28 08/30 DLG Beryllium 0.05 U ma/L EPA 6010 08/28 08/30 DLG Cadmium 0.05 U mg/L EPA 6010 08/28 08/30 DLG Calcium 190 **EPA** 6010 mg/L 08/28 08/30 DLG Chromium 0.05 **EPA** 6010 mg/L 08/28 08/30 DLG Cobalt 0.1 U mg/L **EPA** 6010 08/28 08/30 DLG Copper 0.05 U mg/L EPA 6010 08/28 08/30 DLG Iron 3.2 mg/L **EPA** 6010 08/28 08/30 DLG Lead



0.1

U

EPA 6010

08/28 08/30

DLG

mg/L



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

Client Sample ID :	93.4285-1 BTR-LF01-SW04 WATER	REI OR	I OI AMALI	.515			1	5633 B S ORAGE. AK EL: (907) 56 AX: (907) 56	99518 2-2343
Magnesium Manganese	78 0.56		mg/L mg/L	EPA	6010 6010		08/28 08/28	08/30	D L D L
Molybdenum Nickel	0.05	Ü	mg/L		6010		08/28	08/30	DL
Potassium	0.05	Ü	mg/L		6010		08/28		DL.
Selenium	110 0.1	U	mg/L		6010 6010		08/28		D L
Silver	0.05	Ü	mg/L mg/L		6010		08/28 08/28		DL.
Sodium	440	U	mg/L		6010		08/28		D L .
Thallium	0.005	U	mg/L		7841		08/28		KA
Vanadium	0.05	Ü	mg/L		6010		08/28		DL:
Zinc	0.05	Ü	mg/L		6010		08/28		DL
Dissolved Metals	Analys				_				
ICP Screen, ICF				Ε	PA	n/a			
Aluminum	0.1	U	mg/L		6010		08/28	08/30	DL
Antimony	0.1	U	mg/L		6010		08/28		DL
Arsenic	0.1	U	mg/L	EPA	6010		08/28		DE
Barium	0.11		mg/L		6010		08/28	08/30	DE
Beryllium	0.05	U	mg/L		6010		08/28		DL
Cadmium	0.05	U	mg/L		6010		08/28		DL(
Calcium Chromium	180		mg/L		6010		08/28		Dt
Cobalt	0.05	U	mg/L		6010		08/28		
Copper	0.1 0.05	U	mg/L		6010		08/28		
Iron	0.05	U	mg/L		6010 6010		08/28		DLC
Lead	0.1	U	mg/L mg/L		6010		08/28 08/28		DEA
Magnesium	76	U	mg/L		6010		08/28		D L C
Manganese	0.48		mg/L		6010		08/28		DL(
Molybdenum	0.05	U	mg/L		6010		08/28		DEC
Nickel	0.05	Ū	mg/L		6010		08/28		DLC
Potassium	101		mg/L		6010		08/28		DLC
Selenium	0.1	U	mg/L		6010		08/28		DLC
Silver	0.05	U	mg/L	EPA	6010		08/28		DEC
Sodium	410		mg/L	EIPA	6010		08/28	08/30	DLC
Thallium	0.0050	U	mg/L		7841		08/28	08/30	KAI
Vanadium	0.05	U	mg/L		6010		08/28		DLC
Zinc	0.05	U	mg/L	EPA	6010		08/28	08/30	DLC
TOC, Nonpurgable					9060	n/a			
TOC Range	94.7-100		mg/L		9060			08/31	CMF
TOC Concentra	tion 98.0		mg/L	EPA	90 60			08/31	CMF
Residue, Non-Fil			mg/L		160.2		08/24	08/24	GPF
Residue,Filterab	le(TDS) 2416		mg/L	EPA	160.1	500	08/26	08/27	R JI

** See Sample Remarks Above

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



SES Member of the SGS Group (Société Générale de Surveillance)

^{*} See Special Instructions Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

ICF ID	BTR-LF01-S01	BTR-LF01-S01	BTR-LF01-S01	BTR-LF01-SD01	BTR-LF01-SD02	BTR-LF01-SD03	
F&BI Number	322	322 ms	322 msd	1340	1342	1344	
Sample Type	soil	soil	soil	soil	soil	soil	
Date Received	8/23/93	8/23/93	8/23/93	8/31/93	8/31/93	8/31/93	
% Dry Weight	88	0 20 00	0,20,00	91	46	45	
Sequence Date	#6-08/24/93	#6-08/24/93	#6-08/24/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	
Leaded Gas	#0 00/24/00	#0-00/24/33	#0-00/24/33	#0-00/51/55	#0-00 31 33	#0-00 31 33	
JP-4	< 50			< 50	<110	~ 110	
Lube Oil	< 100			< 110	< 220	< 110	
Diesel	< 50 R	71	70			530	
Spike Level	< 30 K	500		< 50	< 110	<110 5	
Unknown Semi-volatile		ວບບ	500				
Pentacosane	90	103	100	110	100		
Sequence Date	#6-08/23/93	#6-08/23/93	100	113	109	98	
PCB 1221	#0-00/23/93 <0.5 K	#6-06/23/93	#6-08/23/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	
				< 0.1	< 0.1	< 0.1	
PCB 1232	< 0.5			< 0.1	< 0.1	< 0.1	
PCB 1016	< 0.5			< 0.1	< 0.1	< 0.1	
PCB 1242	< 0.5			< 0.1	< 0.1	< 0.1	
PCB 1248	< 0.5	22	440	< 0.1	< 0.1	< 0.1	
PCB 1254	< 0.5	99	110	< 0.1	< 0.1	< 0.1	
PCB 1260	<0.5∜	_	_	< 0.1	< 0.1	< 0.1	
Spike Level	100	5	5	0.4			
Dibutyl Chlorendate	120	130	110	91	91	108	
Sequence Date	#6-08/23/93		-				
alpha-BHC	< 0.02						
beta-BHC	< 0.02						
gamma-BHC	< 0.02						
delta-BHC	< 0.02						
Heptachlor	< 0.02						
Aldrin	< 0.02						
Heptachlor Epoxide	< 0.02						
Endosulfan I	< 0.02						
DDE	< 0.02						
Dieldrin	< 0.02						
Endrin	< 0.02						
Endosulfan II	< 0.02						
DDD	< 0.02						
Endrin Aldehyde	< 0.02						
DDT	< 0.02						
Endosulfan Sulfate	< 0.02						
Endrin Ketone	< 0.02						
Methoxy Chlor	< 0.2						
Chlordane	<1						
Dibutyl Chlorendate	120						
Spike Level							
Vol Sequence				#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	cl
CCI4				<0.02 J	<0.04プ	< 0.04 5	Smf 11:11:94
TCA				<0.02 ゴ	<0.04 ナ	<0.04 J	119177
Benzene				< 0.02	< 0.04	< 0.04	
TCE				< 0.02 5	< 0.04 3	< 0.04 \$\infty\$	
Toluene				< 0.02	< 0.04	< 0.04	
PCE				< 0.02 🍑	<0.04 ⊅	<0.04 ₮	
Ethylbenzene				< 0.02	< 0.04	< 0.04	
Xylenes				D18-60.04		< 0.08	
Gasoline				<2 寸	<4 \(\tau \)	<4 J	
Spike level							
BFB				106	108	109	

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ICF ID F&BI Number	BTR-LF01-SW01 1372	BTR-LF01-SW01 1374	BTR-LF01-SW02 1368	BTR-LF01-SW02 1370	BTR-LF01-SW03 1362
Sample Type	water	water	water	water	water
Date Received	8/30/93	8/30/93	8/30/93	8/30/93	8/30/93
% Dry Weight	0,00,00	0,00,00	0,00,00	0,00,00	5,00,00
Sequence Date	#5-08/31/93		#5-08/31/93		#5-08/31/93
Leaded Gas	#3-00/31/33 n		#3-00/01/00 n		#8 60 0 1/88 n
JP-4	< 200		<200		<200
Lube Oil	< 2000		< 2000		< 2000
Diesel	<2000 ≤20 0 -<100	ok	< 200 Llo		<2000 ≤200 ∠1000
	5200 0100	- 1-	~200 Z(O	50	>200
Spike Level Unknown Semi-volatile					
	100		103		102
Pentacosane	100		#5-08/31/93		#5-08/31/93
Sequence Date	#5-08/31/93		#5.00/31/93 <2 J		#5-06/31/93 <2
PCB 1221	<2 R				<2
PCB 1232	<2		<2		
PCB 1016	<2		<2		<2
PCB 1242	<2		<2		<2
PCB 1248	<2		<2		<2
PCB 1254	<2		<2		<2
PCB 1260	<2 √		<2 ✓		<2
Spike Level					
Dibutyl Chlorendate	100		103		102
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan l					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence		#3&4-08/31/93		#3&4-08/31/93	
CCI4		<1		<1	
TCA		<1		<1	
Benzene		<1		<1	
TCE		<1		<1	
Toluene		56		<1	
PCE		<1		<1	
Ethylbenzene		<1		<1	
Xylenes		<2		<2	
Gasoline		< 100 🌫		<100丁	
Spike level		- 			
BFB		86		100	
- 					

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ICF ID	BTR-LF01-SW03	BTR-LF01-SW04	BTR-LF01-SW04	BTR-LF01-SW04	BTR-LF01-SW04
F&BI Number	1364	1348	1354	1356 dup	1358 ms
Sample Type	water	water	water	water	water
Date Received	8/30/93	8/30/93	8/30/93	8/30/93	8/30/93
% Dry Weight					
Sequence Date		#5-08/31/93			
Leaded Gas		n			
JP-4		< 200			
Lube Oil		< 2000			
Diesel		5280 × 100	00		
Spike Level					
Unknown Semi-volatile					
Pentacosane		101			
Sequence Date		#5-08/31/93			
PCB 1221		<2 J			
PCB 1232		<2			
PCB 1016		<2			
PCB 1242		<2			
PCB 1248		<2			
PCB 1254		<2			
PCB 1260		<2 \(\)			
Spike Level					
Dibutyl Chlorendate		101			
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan i					
DDE				•	
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#3&4-08/31/93		#3&4-08/31/93	#3&4-08/31/93	#3&4-08/31/93
CCI4	<1		<1	<1	89
TCA	<1		<1	<1	71
Benzene	<1		1	<1	79
TCE	<1		- <1	<1	73 74
Toluene	<1		<1	1 carryover	89
PCE	<1		<1	<1	70
Ethylbenzene	<1		<1	<1	85
Xylenes	<2		<2	<2	80
Gasoline	<100 丁		<100プ	< 100	
Spike level				~ 100	
BFB	77		108	90	86
				•	•

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ICF ID	BTR-LF01-2SW01	BTR-LF01-2SW02	BTR-LF01-2SW03	BTR-LF01-2SW04
F&BI Number	1663	1664	1665	1666
Sample Type	water	water	water	water
Date Received	9/2/93	9/2/93	9/2/93	9/2/93
% Dry Weight				
Sequence Date	#5-09/06/93	#5-09/06/93	#5-09/06/93	#5-09/06/93
Leaded Gas				
JP-4	< 1000	< 1000	< 1000	< 1000
Lube Oil	< 2000	< 2000	< 2000	< 2000
Diesel	< 1000	< 1000	< 1000	< 1000
Spike Level				
Unknown Semi-volatile				
Pentacosane	140	150	130	120
Sequence Date				
PCB 1221				
PCB 1232				
PCB 1016				
PCB 1242				
PCB 1248				
PCB 1254				
PCB 1260				
Spike Level				
Dibutyl Chlorendate				
Sequence Date				
alpha-BHC				
beta-BHC				
gamma-BHC				
delta-BHC				
Heptachlor				
Aldrin				
Heptachlor Epoxide				
Endosulfan I				
DDE				
Dieldrin				
Endrin				
Endosulfan II				
DDD				
Endrin Aldehyde				
TDD				
Endosulfan Sulfate				
Endrin Ketone				
Methoxy Chlor				
Chlordane				
Dibutyl Chlorendate				
Spike Level				
Vol Sequence				
CCI4				
TCA				
Benzene				
TCE				
Toluene				
PCE				
Ethylbenzene				
Xylenes				
Gasoline Spike level				
United Invest				

Spike level BFB ANALYTICAL DATA SHEETS FOR THE POL CATCHMENT (LF03)



ENVIRONMENTAL LABORATORY SERVICES

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PEDDOT - C. ...

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR-A0C08-S01

:93.4302-1/LF&3

SOIL STIT Matrix

5633 B STREE ANCHORAGE, AK 9951 TEL: (907) 562-2340 FAX: (907) 561-530

Client Name

8mf 11.3.94 :ICF KAISER ENGINEERING

Ordered By

:RAY MORRIS

Project Name Project# PWSID

:DEW LINE :BARTER :UA

WORK Order Report Completed

:70001 :09/28/93

Collected :08/20/93 Received

@ 10:20 :08/24/93 @ 12:00

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.200	บ	mg/Kg	EPA 8260		00 (05	00.40.5	
Bromobenzene	0.200	Ü	mg/Kg	EPA 8260			09/06	SG
Bromochloromethane	0.200	Ü	mg/Kg	EPA 8260			09/06	
Bromodichloromethane	0.200	Ü	mg/Kg	EPA 8260			09/06	SG
Bromoform	0.200	Ü	mg/Kg	EPA 8260			09/06	SG
Bromomethane	0.200	Ū	mg/Kg	EPA 8260			09/06	SG
n-Butylbenzene	3.70	Ď	mg/Kg	EPA 8260			09/06	SG:
sec-Butylbenzene	1.62	Ď	mg/Kg	EPA 8260			09/06	SG
tert-ButylBenzne	0.200	Ū	mg/Kg	EPA 8260			09/06	SG!
_Carbon Tetrachloride	0.200	Ū	mg/Kg	EPA 8260			09/06	SG
Chlorobenzene	0.200	Ū	mg/Kg	EPA 8260			09/06	SGI
Chloroethane	0.200	Ū	mg/Kg	EPA 8260			09/06	SGI
Chloroform	0.200	Ü	mg/Kg	EPA 8260			09/06	SGI
Chloromethane	0.200	Ū	mg/Kg	EPA 8260			09/06	SG
2-Chlorotoluene	0.200	Ü	mg/Kg	EPA 8260			09/06	SGI
4-Chlorotoluene	0.200	Ū	mg/Kg	EPA 8260			09/06	SGI
Dibromochloromethane	0.200	Ü	mg/Kg	EPA 8260		08/25		SGI
12Dibromo3Chloropropane	0.200	Ū	mg/Kg	EPA 8260		08/25		SGì
1,2-Dibromoethane	0.200	Ū	mg/Kg	EPA 8260		08/25		SGI
Dibromomethane	0.200	Ū	mg/Kg	EPA 8260		08/25		SGI
1,2-Dichlorobenzene	0.200	Ū	mg/Kg	EPA 8260		08/25		SGI
1,3-Dichlorobenzene	0.200	_	mg/Kg	EPA 8260		08/25		SGM
1,4-Dichlorobenzene	0.200	Ŭ	mg/Kg	EPA 8260		08/25		SGM
Dichlorodifluoromethane	0.200		mg/Kg	EPA 8260		08/25		SGH
1,1-Dichloroethane	0.200	_	mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloroethane	0.200	_	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloroethene	0.200		mg/Kg	EPA 8260		08/25		SGM
cis-1,2-Dichloroethene	0.200		mg/Kg	EPA 8260		08/25		SGM
trans1,2-Dichloroethene	0.200		mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloropropane	0.200		mg/Kg	EPA 8260		08/25		SGM
1,3-Dichloropropane	0.200		mg/Kg	EPA 8260		08/25		SGM
2,2-Dichloropropane	0.200		mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloropropene	0.200		mg/Kg	EPA 8260		08/25		SGM
Ethylbenzene	£0 2313	_	mg/Kg	EPA 8260		08/25		SGM
Hexachlorobutadiene	0.200	_	mg/Kg	EPA 8260	•	08/25		SGM
<pre>#/Isopropylbenzene</pre>	20 2409		mg/Kg	EPA 8260		08/25		SGM
p-Isopropyltoluene	1.69	_	mg/Kg	EPA 8260		08/25		SGM
		_	3/ 1/9	EFA 0200		08/25	09/06	SGM



ENVIRONMENTAL LABORATORY SERVICES

	Chavered 5	L LABORAT	ORY 1	SERVICES	3		
SINCE 190H	2 Calvalation	.0		PORT of A			
Chemlab Ref.	\$:93.4302-1	LFOO	ı	ONI OI A	MUTITALA	5633 B S	TREET
Client Sample	ID :BTR-AOCOS	-S01				ANCHORAGE, AK TEL: (907) 56	99518
Matrix	:SOIL Y					FAX: (907) 56	1-5301
	STH	7, 11.3.94				, ,	
Methylene (Chloride 8	11.3.77 W 0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGI
Napthalene		0.200	Ū	mg/Kg	EPA 8260	08/25 09/06	SGI
n-Propylber	nzene	. 0.920	D	mg/Kg	EPA 8260	08/25 09/06	SGI
Styrene		0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGI
	chloroethane	0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGI
	chloroethane	0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGI
Tetrachloro	ethene	0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGI
Toluene		0.200	Ų	mg/Kg	EPA 8260	08/25 09/06	SGF
1,2,3-Trich	lorobenzene	0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGM
	lorobenzene	0.200	Ü	mg/Kg	EPA 8260	08/25 09/06	SGM
1,1,1-Trich		0.200	Ü	mg/Kg	EPA 8260	08/25 09/06	SGM
1,1,2-Trich		0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGM
Trichloroet	nene .uoromethane	0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGM
		0.200	U	mg/Kg	EPA 8260	08/25 09/06	SGM
1,2,3-11101 1,2,4-Trime	loropropane	0.200	Ū	mg/Kg	EPA 8260	08/25 09/06	SGM
1 3 5-Trime		15.0	D.	mg/Kg	EPA 8260	08/25 09/06	SGM
Vinyl Chlor	ide	0.200	D	mg/Kg	EPA 8260	-0 8/25 09/06	SGM
P+m-Xylene			U D	mg/Kg	EPA 8260	08/25 09/06	SGM
o-Xylene	1 .30 11.00	1.60	D	mg/Kg mg/Kg	EPA 8260	08/25 09/06	SGM
	•	3,14		mg/ Ng	EPA 8260	08/25 09/06	SGM
Semivolatil	e Organics	77.1			EPA 8270		_
Phenol		2.10	U	mg/Kg	EPA 8270	09/03 09/24	$_{\mathrm{T}}$
_bis(2-Chlor	oethyl)ether	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
2-Chlorophe	nol	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
1,3-Dichlor		2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
1,4-Dichlor	obenzene	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
Benzyl Alcol	hol	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
1,2-Dichlore	obenzene	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
2-Methylpher		2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
4-Methylpher	oisopropyl)e	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
n-Nitroso d	i-n-Propylam	2.10	Ü	mg/Kg	EPA 8270	09/03 09/24	MTT
Hexachloroet	r-u-rrobàram	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
Nitrobenzene		2.10 2.10		mg/Kg	EPA 8270	09/03 09/24	MTT
Isophorone	•	2.10	U U	mg/Kg	EPA 8270	09/03 09/24	MTT
2-Nitropheno	01	2.10	Ü	mg/Kg mg/Kg	EPA 8270	09/03 09/24	MTT
2,4-Dimethy]	phenol	2.10	Ü	mg/Kg	EPA 8270 EPA 8270	09/03 09/24	MTT
Benzoic Acid	1	2.10	Ü	mg/Kg	EPA 8270	09/03 09/24 09/03 09/24	MTT
bis(2-Chlore	ethoxy)Meth	2.10	Ū	mg/Kg	EPA 8270	09/03 09/24	MTT MTT
2,4-Dichloro	phenol	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
1,2,4-Trichl	.orobenzene	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
Naphthalene		2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
4-Chloroanil	ine	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
Hexachlorobu	radiene	2.10	U	mg/Kg	EPA 8270	09/03 09/24	MTT
4-Chloro-3-M	reruAtbueuoT	2.10	U	mg/Kg	EPA 8270		MTT
Hexachlorocy	iciatelle	3.47	,,	mg/Kg	EPA 8270	09/03 09/24	MTT
2,4,6-Trichl	crobence	2.10 2.10	U U	mg/Kg	EPA 8270		MTT
2,4,5-Trichl	orophenol	2.10	U	mg/Kg	EPA 8270		MTT
2-Chloronaph	thalene		U	mg/Kg mg/Kg	EPA 8270	09/03 09/24	
	·· —	~ * * * *	-	a\ 1/d	EPA 8270	09/03 09/24	



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

CHANGE OF THE PROPERT OF AN

:93.4302-1, LF03 Chemlab Ref.# Client Sample ID :BTR-A0008-S01 :SOIL -STIT-Matrix

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

TIX :SOIL SIN								1
-Nitroppiling	2 10	11	ma/Ka	EDV.	9270	09/03 0	9/24	MTT
								MT
								MT
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		Ū				09/03 0	9/24	MTI
		Ū				09/03 0	9/24	MTT
	2.10	U				09/03 0	9/24	TTM
	2.10	U				09/03 0	09/24	MTT
Butylbenzylphthalate	2.10	U	mg/Kg	EPA	. 82 70			MTT
	2.10	U	mg/Kg					MTT
· ·	2.10	U	mg/Kg					MTT
	2.10	U	mg/Kg	EPA	. 82 70			MTT
		U	mg/Kg	EPA	. 82 70			MTT
di-n-Octylphthalate		U	mg/Kg					MTT
Benzo(b)Fluoranthene		U	mg/Kg					MTT
Benzo(k)Fluoranthene		-	mg/Kg					MTT
		บ	mg/Kg					MTT
		U	mg/Kg					MTT
		-						MTT
Benzo(g,h,i)Perylene	2.10	U	mg/Kg	EPA	8270	09/03 (19/24	MTT
	2-Nitroaniline Dimethylphthalate Acenaphthylene Dimethylphthalate Acenaphthene Dimethylphthalate Dimethylphthalate Dicenaphthene Dicenaphthene Dibenzofuran Diben	2.10 Dimethylphthalate Dimethy	2-Nitroaniline 2.10 U 2.6-Dinitrotoluene 2.10 U 3-Nitroaniline 2.10 U 3-Nitroaniline 3-Nitroaniline 3-Nitroaniline 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitrophenol 3-Nitroaniline 3-10 U 3-Nitroaniline 3-10 U 3-Nitroaniline 3-Nitroaniline 3-Nitroaniline 3-Nitrosodiphenyl-Phenylet 3-Nitrosodiphenylamine 3-Nitrophenol	2-Nitroaniline 2.10 U mg/Kg Cenaphthylene 2.10 U mg/Kg Cenaphthylene 2.10 U mg/Kg Cenaphthylene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenaphthene 2.10 U mg/Kg Cenachlorophenyl-Phenylet Cenachlorophenyl-Phenylet Cenachlorophenyl-Phenylet Cenachlorophenol Cenachlorophen	C-Nitroaniline	### 2.10 U mg/Kg EPA 8270	SWEAT 1	### 2.10 U mg/Kg EPA 8270 09/03 09/24 09/0

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

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REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

mercal

FAX: (907) 561-5301

hr

hr

Chemlab Ref.# Client Sample ID :BTR-AOCO8-S01

:93.4302-2 F63

Matrix

Project#

PWSID

SPIKE :SOIL 5717 8WF 12.595

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:DEW LINE

:RAY MORRIS

:BARTER :UA

WORK Order

Report Completed :09/28/93 Collected :08/20/93 @ 10:20

Received :08/24/93 @ 12:00 Technical Director: STEPHEN C. EDE

:70001

Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. 8270: DUE TO A HIGH HYDROCARBON INTERFERENCE IN THE SAMPLE, NO SPIKE RECOVERIES COULD

BE CALCULATED.

Parameter	Results (QC Qual Units	Method	Allowable Limits		Anal Date	Init
Semivolatile Organics			EPA 8270				
Phenol	**	mg/Kg	EPA 8270		ma /n s	09/20	Man
bis(2-Chloroethyl)ether	**	mg/Kg	EPA 8270			09/20	MTI MTI
2-Chlorophenol	**	mg/Kg	EPA 8270			09/20	
1,3-Dichlorobenzene	**	mg/Kg	EPA 8270			09/20	TTM TTM
1,4-Dichlorobenzene	**	mg/Kg	EPA 8270			09/20	MT
Benzyl Alcohol	**	mg/Kg	EPA 8270			09/20	<u>m</u>)
1,2-Dichlorobenzene	**	mg/Kg	EPA 8270			09/20	
2-Methylphenol	**	mg/Kg	EPA 8270			09/20	MTT
bis(2-Chloroisopropyl)e	**	mg/Kg	EPA 8270			09/20	
4-Methylphenol	**	mg/Kg	EPA 8270			09/20	MTT
n-Nitroso-di-n-Propylam	**	mg/Kg	EPA 8270			09/20	MTT
Hexachloroethane	**	mg/Kg	EPA 8270			09/20	MTT
Nitrobenzene	**	mg/Kg	EPA 8270			09/20	MTT
Isophorone	**	mg/Kg	EPA 8270				MTT
2-Nitrophenol	**	mg/Kg	EPA 8270		09/03		MTT
2,4-Dimethylphenol	**	mg/Kg	EPA 8270		09/03		MTT
Benzoic Acid	**	mg/Kg	EPA 8270		09/03		MTT
bis(2-Chloroethoxy)Meth	**	mg/Kg	EPA 8270		09/03 09/03		MTT
2,4-Dichlorophenol	**	mg/Kg	EPA 8270				MTT
1,2,4-Trichlorobenzene	**	mg/Kg	EPA 8270		09/03		MTT
Naphthalene	**	mg/Kg	EPA 8270		09/03		MTT
4-Chloroaniline	**	mg/Kg	EPA 8270		09/03		MTT
Hexachlorobutadiene	**	mg/Kg	EPA 8270		09/03		MTT
4-Chloro-3-Methylphenol	**	mg/Kg	EPA 8270		09/03		MTT
2-Methylnaphthalene	**	mg/Kg	EPA 8270		09/03		MTT
Hexachlorocyclopentadie	**	mg/Kg	EPA 8270		09/03		MTT
2,4,6-Trichlorophenol	**	mg/Kg	EPA 8270		09/03		MTT
2,4,5-Trichlorophenol	**	mg/Kg	EPA 8270		09/03		MTT
2-Chloronaphthalene	**	mg/Kg	EPA 8270		09/03		MTT
2-Nitroaniline	**	mg/Kg	EPA 8270		09/03		MTT
Dimethylphthalate	**	mg/Kg	EPA 8270		09/03		MTT
Acenaphthylene	**	mg/Kg	EPA 8270		09/03		MTT
2,6-Dinitrotoluene	**	mg/Kg	EPA 8270 EPA 8270		09/03	•	MTT
3-Nitroaniline	**	mg/Kg	EPA 8270		09/03 (MTT
Acenaphthene	**	mg/Kg	EPA 8270		09/03 (T
		a\ 1./d	EFA 02/0	•	09/03 (13/20	



ENVIRONMENTAL LABORATORY SERVICES

:93.4302-2, FOS Chemlab Ref.#

REPORT of ANALYSIS

Client Sample ID :BTR-Accod-S01 SPIKE Matrix :SOIL STITE

5633 B STREET ANCHORAGE, AK 99516 TEL: (907) 562-2343 -5301

MTT

dcr 17	SOIL BIT Sout					1	FAX: (907) 56	1-5301
2,4-Dinitropheno	2695							
4-Nitrophenol	Τ.	**	mg/Kg	EPA	8270	09/03	09/20	ΜT
Dibenzofuran		**	mg/Kg	EPA	8270	09/03	09/20	
		**	mg/Kg		8270		09/20	TM
2,4-Dinitrotolue	ne	**	mg/Kg	EPA				MT
Diethylphthalate	_	**	mg/Kg	EPA			09/20	TM
4-Chlorophenyl-P	henylet	**	mg/Kg	EPA			09/20	TM
Fluorene		**	mg/Kg	EPA			09/20	MT
4-Nitroaniline		**	mg/Kg	EPA			09/20	MT
4,6-Dinitro-2-Me	thylphe	**	mg/Kg	EPA			09/20	MT
n-Nitrosodipheny	lamine	**	mg/Kg-	EPA 8			09/20	MT
4-Bromophenyl-Ph	enyleth	**	mg/Kg	EPA 8			09/20	MT
Hexachlorobenzen	<u>e</u>	**	mg/Kg				09/20	MT
Pentachloropheno.	l	**	mg/Kg	EPA 8			09/20	MT
Phenanthrene		**	mg/Kg	EPA 8			09/20	MT
Anthracene		**	mg/Kg	EPA 8		09/03	09/20	MT.
di-n-Butylphthala	ate	**	mg/Kg	EPA 8		09/03	09/20	MT.
Fluoranthene		**		EPA 8			09/20	MT
Pyrene		**	mg/Kg	EPA 8		0 9/03		MT
Butylbenzylphthal	Late	**	mg/Kg	EPA 8		09/03	09/20	MTT
3,3-Dichlorobenzi	idine	**	mg/Kg	EPA 8		09/03	09/20	MTI
Benzo(a)Anthracer	ne	**	mg/Kg	EPA 8		09/03		MTI
Chrysene		**	mg/Kg	EPA 8		09/03	09/20	MTI
bis(2-Ethylhexyl)	Phthal	**	mg/Kg	EPA 8		09/03		MTT
di-n-Octylphthala	te	**	mg/Kg	EPA 8		09/03		MTI
Benzo(b)Fluoranth	iene	**	mg/Kg	EPA 8		09/03		MTI
Benzo(k)Fluoranth	iene	**	mg/Kg	EPA 8		09/03		MTT
Benzo(a)Pyrene		**	mg/Kg	EPA 8		09/03		MTT
Indeno $(1,2,3-cd)$ P	vrene	^ ^ **	mg/Kg	EPA 8	3270	09/03		MTT
Dibenz(a,h)Anthra	Jr Cult	** **	mg/Kg	EPA 8	270	09/03		MTT
Benzo(g,h,i)Peryl	COLIC		mg/Kg	EPA 8	270	09/03		MTT
(almir)r GrAT	CHE	**	mg/Ka	EPA 8	270	00/03		1111

EPA 8270

See Special Instructions Above See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than

09/03 09/20

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

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REPORT of ANALYSIS

Chemlab Ref.#

:93.4302-3,463

Client Sample ID :BTR-A0C08-S01 SPIKE DUPLICATE

Matrix

:SOIL STITE 'n.595

:70001

Client Name Ordered By Project Name :ICF KAISER ENGINEERING :RAY MORRIS :DEW LINE

WORK Order Report Completed Collected

:09/28/93 :08/20/93 @ 11:00 hr

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Project# PWSID

:BARTER :UA

:08/24/93 @ 12:00 hr Received

Technical Director: STEPHEN C. EDE

Released By :

merce Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. 8270: DUE TO

A HIGH HYDROCARBON INTERFERENCE IN THE SAMPLE, NO SPIKE RECOVERIES

COULD BE CALCULATED.

Parameter	Results Qu	C Wal Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini [.]
Semivolatile Organics Phenol bis(2-Chloroethyl)ether 2-Chlorophenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene Benzyl Alcohol 1,2-Dichlorobenzene 2-Methylphenol bis(2-Chloroisopropyl)e 4-Methylphenol n-Nitroso-di-n-Propylam Hexachloroethane Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Benzoic Acid bis(2-Chloroethoxy)Meth 2,4-Dichlorophenol 1,2,4-Trichlorobenzene Naphthalene 4-Chloro-3-Methylphenol 2-Methylnaphthalene Hexachlorocyclopentadie 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline	Results Qu ** ** ** ** ** ** ** ** ** ** ** ** *		Method EPA 8270	Limits	Date 09/03 09/03 09/03 09/03 09/03 09/03 09/03 09/03 09/03 09/03 09/03	Date 09/20	MTI MTI MTI MTI MTI
Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene 3-Nitroaniline Acenaphthene	** ** ** **	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270		09/03 09/03 09/03 09/03 09/03	09/20 09/20 09/20 09/20	MTT MTT MTT



ENVIRONMENTAL LABORATORY SERVICES

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:93.4302-3, LFØ3

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR-AOCO8-S01 SPIKE DUPLICATE Matrix :SOIL STITE

5633 B STREE ANCHORAGE, AK 99518 TEL: (907) 562-234;

:501	suic -			FAX: (907) 561-530:
2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran	2.5.95 ** **	mg/Kg mg/Kg	EPA 8270 EPA 8270	09/03 09/20 MT 09/03 09/20 MT
2,4-Dinitrotoluene Diethylphthalate 4-Chlorophenyl-Pheny Fluorene 4-Nitroaniline 4,6-Dinitro-2-Methyl n-Nitrosodiphenylami 4-Bromophenyl-Phenyl Hexachlorobenzene Pentachlorophenol	** ** 'let	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT
Phenanthrene Anthracene di-n-Butylphthalate Fluoranthene Pyrene Butylbenzylphthalate 3,3-Dichlorobenziding Benzo(a)Anthracene Chrysene bis(2-Ethylhexyl)Phthalate	e ** ** **	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT
Benzo(b)Fluoranthene Benzo(k)Fluoranthene Benzo(a)Pyrene Indeno(1,2,3-cd)Pyren Dibenz(a,h)Anthracene Benzo(g,h,i)Perylene	** ** **	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not AnalyzedLT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-7 Client Sample ID :BTR LF03 S01-6.75

Matrix :SOIL

> **:698**28 RUSH Order

Report Completed **:08**/30/93

:08/18/93 Collected 0 13:17 hrs Received :08/20/93 @ 11:30 hrs

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHENY C. EDE

Released By :

Client Name

:ICF KAISER ENGINEERING Ordered By Project Name

:RAY MORRIS :DEW LINE :BARTER

Project# PWSID :UA

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. ÆPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	97.4		% mg∕Kg	SM17 2540G 3510/3550/8100M		08/22	08/22 08/24	MY JBH
VPH & BTEX Hydrocarbons VPH	0.400	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020	U U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21 08/21 08/21	08/23 08/23 08/23	JLB JLB JLB
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane	0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020	บ บ บ บ บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23	JLB JLB JLB JLB JLB JLB JLB JLB JLB
Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethane 1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane Vinyl Chloride Chloroethane	0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020	נוטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטט	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23	JLB JLB JLB JLB JLB JLB JLB JLB JLB JLB



REPORT of ANALYSIS

Chemlab Ref.# :93.4216-/
Client Sample ID :BTR LF03 S01-0.75

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

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1,4 Dichlorobenzene	0 000				7 7 7 (007) 501-5301
2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020 0.020 0.020 0.020	บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/21 08/23 JL 08/21 08/23 JL 08/21 08/23 JL 08/21 08/23 JL

First Notice

0.00 0.025 3.026 0.020 0.020 0.020 0.025 3.033 1.420 0.020 0 325 ...020 3.320 . 325 9.620

*** ** * * *

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than

Special Instructions Above See Sample Remarks Above

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= Undetected, Reported value is the practical quantification limit.

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Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES



REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR LF03 S02

:93.4216-8

Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99516 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:DEW LINE

Project# PWSID

:RAY MORRIS

:BARTER :UA

RUSH Order

Collected

Received

:69828

Report Completed

:08/30/93

:08/18/93

@ 13:22 hr :08/20/93 @ 11:30 hr

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. unlit EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	. Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini [.]
Percent Solids Hydrocarbons EPH	98.2 6 ₇ 95	9	% mg∕Kg	SM17 2540G 3510/3550/8100M		08/22	08/22 08/24	M: JBI
VPH & BTEX Hydrocarbons VPH	0.400	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	WL
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020	บ บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21 08/21	08/23 08/23 08/23	JLE JLE
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane	0.020 0.020 0.020	U U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21	08/23 08/23	JLE JLE JLE
Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane	0.020 0.020 0.020 0.020 0.020	U U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21	08/23 08/23 08/23 08/23	JLB JLB JLB
Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene	0.020 0.020 0.020 0.020 0.020	U U U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21 08/21	08/23 08/23 08/23 08/23	JLB JLB JLB JLB JLB
1,2 Dichloroethane 1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene	0.020 0.020 0.020 0.020	U U U U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 (08/21 (08/21 (08/21 (08/21 (08/23 08/23 08/23	JLB JLB JLB JLB JLB
cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane	0.020 0.020 0.020 0.020 0.020	U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 (08/21 (08/21 (08/21 (08/21 (08/23 08/23 08/23 08/23	JLB JLB JLB
Vinyl Chloride Chloroethane	0.020 0.020	U	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21 0 08/21 0	8/23	JLE



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4216-8 Client Sample ID :BTR LF03 S02 Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020	U U	ng/Kg ng/Kg ng/Kg ng/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/21 08/23 JL 08/21 08/23 JL 08/21 08/23 JL 08/21 08/23 JL	I
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see Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

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LT = Less Than

GT = Greater Than

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ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-9 Client Sample ID :BTR LF03 S03

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

RUSH Order

:69828

Report Completed :08/30/93 Collected

Received

:08/18/93 **@ 13:32** :08/20/93 @ 11:30 hrs

Technical Director: STEPHEN &. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	90.8	•	% mg∕Kg	SM17 2540G 3510/3550/8100M		08/22	08/22 08/24	MY JBH
VPH & BTEX Hydrocarbons VPH	0.400	บ	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020	บ บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23	JLB JLB JLB
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethane 1,1,1 Trichoroethane	0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020	U U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23	
Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane Vinyl Chloride Chloroethane	0.020 0.020 0.020 0.020 0.020 0.020 0.020	ช บ บ บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23	JLB JLB JLB JLB JLB



COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

mlab Ref.# :93.4216-9 erient Sample ID :BTR LF03 S03

*: 1

:SOIL

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

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1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020 0.020 0.020 0.020	บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/21 08/23 J 08/21 08/23 J 08/21 08/23 J 08/21 08/23 J	7
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wited Volenil -To Caloride spoonstyle .uccethar an**ach**illean, t Motoproper stray Lame shi occetiv 1,3 15 16 11 COMENY LET 1.67%

1. 1. 2 X. 1. 1. . 15.7 and the 6.5

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See Special Instructions Above

see Sample Remarks Above Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4216-11 Client Sample ID :BTR LF03 SD01

Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS :DEW LINE :BARTER

Project# PWSID

:UA

RUSH Order

Received

:69828

Report Completed :08/30/93 Collected

:08/18/93

@ 12:00 hr: **:08/**20/93 @ 11:30 hr:

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. SAMPLE

NOT RECORDED ON CHAIN OF CUSTODY.

Parameter	Results	Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	38.7		*	CV4.7. 05.444				
Hydrocarbons EPH	2250	Ð	mg/Kg	SM17 2540G 3510/3550/8100M		00./22	08/22	MY
ITTEL C. DETT.		_		2210/2220/QT00U		08/22	08/24	JBH
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	12.7		mg/Kg	EPA 5030/8015m		08/21	08/27	WLS
Benzene	0 070	••		·			,	
Toluene	0.070 0.070	U U	mg/Kg	EPA 8020			08/24	TB
Ethylbenzene	0.323	-	mg/Kg	EPA 8020			08/24	
p&m Xylene	0.642		mg/Kg mg/Kg	EPA 8020			08/24	e.
o-Xylene	0.185		mg/Kg	EPA 8020		08/21		JL
	3,100		-9/1/9	EPA 8020		08/21	08/24	JLB
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.070	ប	nng/Kg	EPA 8010		08/21	08/24	JLB
1,1 Dichloroethylene	0.070	U	mg/Kg	EPA 8010		08/21	•	JLB
1,1 Dichloroethane Chloroform	0.070	U	mg/Kg	EPA 8010		08/21		JLB
Carbontetrachloride	0.070	U	mg/Kg	EPA 8010		08/21		JLB
1, 2 Dichloropropane	0.070	U	mag∕Kg	EPA 8010		08/21		JLB
Trichloroethylene	0.070 0.070	U	mg/Kg	EPA 8010		08/21	08/24	JLB
1,1,2 Trichloroethane	0.070	U U	mg/Kg	EPA 8010		08/21		JLB
Dibromochloromethane	0.070	_	mg/Kg	EPA 8010		08/21		JLB
Tetrachloroethylene	0.070		nng/Kg nng/Kg	EPA 8010		08/21		JLB
Chlorobenzene	0.070	_	ng/Kg	EPA 8010		08/21		ЛB
Trichlorofluoromethane	0.070		mg/Kg	EPA 8010 . EPA 8010		08/21 08/21		JLB JLB
Trans12Dichloroethylene	0.070		mg/Kg	EPA 8010		08/21		JLB
1,2 Dichloroethane	0.070	U	mg/Kg	EPA 8010		08/21		JLB
1,1,1 Trichoroethane Bromodichloromethane	0.070		mg/Kg	EPA 8010		08/21		JLB
Transi, 3Dichloropropene	0.070		mg∕Kg	EPA 8010		08/21		JLB
cis-1,3-Dichloropropene	0.070		mg/Kg	EPA 8010		08/21	08/24	JLB
Bromoform	0.070 0.070		mg/Kg	EPA 8010		08/21	•	JLB
1122-Tetrachloroethane	0.070	_	nag/Kg nag/Kg	EPA 8010		08/21		JLB
Chloromethane	0.070		mg∕kg mag/Kg	EPA 8010		08/21 (JLB
Bromoet hane	0.070		mg∕Kg Mg∕Kg	EPA 8010 EPA 8010		08/21 (JLB
Vinyl Chloride	0.070	_	mg/Kg	EPA 8010 EPA 8010		08/21 (08/21 (
Chloroethane	0.070		ng/Kg	EPA 8010		08/21 (08/21 (Ball
			_, .,	CAN COLV	,	00/21	0/47	ULLB



Matrix

COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

mlab Ref.# :93.4216-11 Client Sample ID :BTR LF03 SD01

:SOIL

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

1,4 Dichlorobenzene 0.070 2-Chloroethylvinylether mg/Kg EPA 8010 0.070 1,3-Dichlorobenzene ng/Kg EPA 8010 0.070 1,2-Dichlorobenzene U **m**g∕Kg EPA 8010 0.070 U mg/Kg EPA 8010 .

08/21 08/24 JLI 08/21 08/24 JL 08/21 08/24 JLE 08/21 08/24 JLE

e Special Instructions Above ee Sample Remarks Above

: Undetected, Reported value is the practical quantification limit.

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UA = Unavailable NA = Not Analyzed

LT = Less Than

GT = Greater Than



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-3 Client Sample ID :BTR LF03 SD01

Matrix

PWSID

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS :DEW LINE :BARTER

:UA

WORK Order

:69840

Report Completed Collected

Received

:10/08/93

:08/18/93 @ 12:00 hrs :08/20/93 @ 11:30 hrs

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. J = INDICATES AN

ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S

CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

•	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.400	U	mg/Kg	EPA 8260		08/2/	09/01	KWM
	Bromobenzene	0.400	Ū	mg/Kg	EPA 8260			09/01	KWM
	Bromochloromethane	0.400	บั	mg/Kg	EPA 8260			09/01	KWM
	Bromodichloromethane	0.400	Ū	mg/Kg	EPA 8260			09/01	KWM
	Bromoform	0.400	Ū	mg/Kg	EPA 8260			09/01	KWM
	Bromomethane:	0.400	Ū	mg/Kg	EPA 8260			09/01	ICALL
	Sautylbenzene	12635	ED#	ma/Ka	EPA 8260			09/01	
	sec-Butylbenzene	0.400	U	mg/Kg	EPA 8260			09/01	KWM
	tert-Butylbenzne	0.400	U	mg/Kg	EPA 8260			09/01	KWM
	Carbon Tetrachloride	0.400	U	mg/Kg	EPA 8260			09/01	KWM
	Chlorobenzene	0.400	ប	mg/Kg	EPA 8260		•	09/01	KWM
	Chloroethane	0.400	U	mg/Kg	EPA 8260			09/01	KWM
	Chloroform	0.400	U	mg/Kg	EPA 8260			09/01	KWM
	Chloromethane	0.400	U	mg/Kg	EPA 8260			09/01	KWM
	2-Chlorotoluene	0.400	U	mg/Kg	EPA 8260			09/01	KWM
	4-Chlorotoluene	0.400	Ū	mg/Kg	EPA 8260			09/01	KWM
	Dibromochloromethane	0.400	Ü	mg/Kg	EPA 8260			09/01	KWM
	12Dibromo3Chloropropane	0.400	Ü	mg/Kg	EPA 8260		08/24		KWM
	1,2-Dibromoethane	0.400		mg/Kg	EPA 8260		08/24		KWM
	Dibromomethane	0.400		mg/Kg	EPA 8260		08/24		KWM
	1,2-Dichlorobenzene	0.400		mg/Kg	EPA 8260		08/24		KWM
	1,3-Dichlorobenzene	0.400		mg/Kg	EPA 8260		08/24		KWM
	1,4-Dichlorobenzene	0.400		mg/Kg	EPA 8260		08/24		KWM
	Dichlorodifluoromethane	0.400		mg/Kg	EPA 8260		08/24		KWM
	1,1-Dichloroethane	0.400		mg/Kg	EPA 8260		08/24		KWM
	1,2-Dichloroethane	0.400		mg/Kg	EPA 8260		08/24		KWM
	1,1-Dichloroethene	0.400		mg/Kg	EPA 8260		08/24		KWM
	cis-1,2-Dichloroethene	0.400		mg/Kg	EPA 8260		08/24		KWM
	trans1,2-Dichloroethene	0.400		mg/Kg	EPA 8260		08/24		KWM
	1,2-Dichloropropane	0.400	U	mg/Kg	EPA 8260		08/24		KWM
	1,3-Dichloropropane	0.400	U	mg/Kg	EPA 8260		08/24		KWM
	2,2-Dichloropropane	0.400	U	mg/Kg	EPA 8260		08/24		KWM
	1,1-Dichloropropene	0.400		mg/Kg	EPA 8260		08/24		KWM
	Ethylbenzene	0.400		mg/Kg	EPA 8260		08/24		
	Hexachlorobutadiene	0.400	U	mg/Kg	EPA 8260	(08/24	09/01	



COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Memlab Ref.# :93.4212-3 Client Sample ID :BTR LF03 SD01
Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

Matrix	:SOIL	***						FAX: (907) 5	
Isopropylbe	enzene	0.400	U	mg/Kg	L41.7 #	0266	00.40	4 00 (01	
p-Isopropy]		0.400	บ	mg/Kg		8260		4 09/01	KWM
Methylene (0.400	Ü	mg/kg		8260		4 09/01	KWM
Napthalene		0.400	Ü	mg∕kg		8260		4 09/01	KWM
n-Propylber	nzene	0.400	Ü	mg/Kg		8260		4 09/01	KWM
Styrene		0.400	Ü	mg/kg		8260		4 09/01	KWM
	chloroethane	0.400	Ü	mg∕Kg		8260		4 09/01	KWM
	chloroethane	0.400	Ü	mg∕Kg		8260		4 09/01	KWM
Tetrachloro		0.400	Ü	mg∕Kg		8260		4 09/01	KWM
Toluene	oc chichic	0.400	Ü	mg∕Kg		8260		1 09/01	KWM
	nlorobenzene	0.400	Ü	mg/Kg		8260		1 09/01	KWM
1.2.4-Trich	lorobenzene	0.400	Ü	mg∕Kg		8260		1 09/01	KWM
1,1,1-Trich	loroethane	0.400	_			8260		1 09/01	KWM
1,1,2-Trich	loroethane	0.400	Ü	mg/Kg mg/Kg		8260		09/01	KWM
Trichloroet	hene	0.400	Ü	mg/Kg		8260		1 09/01	KWM
	Luoromethane	0.400	Ü	mg/Kg		8260		09/01	KWM
	loropropane	0.400	บ	mg∕Kg		8260		1 09/01	KWM
	thylbenzens			ing/kg ing/kg		8260		09/01	KWM
	thylbenzene			mg/Kg		8260		09/01	KWM
Vinyl Chlor		0.400	Ü	mg/Kg		8260		09/01	KWM
p+m-Xylene	. 200	0.400	Ü	mg/Kg		8260		09/01	KWM
o-Xylene	₹	0.400	Ü	mg/Kg		8260		09/01	KWM
		0.400	J	mg/ ng	EPA	8260	08/24	09/01	KWM
Semivolatil	e Organics				FPA	8270			
Phenol		3.5	U	mg/Kg		8270	08/31	09/07	MTT
bis(2-Chlor	coethyl)ether	3.5	U	mg/Kg		8270		09/07	MTT
2-Chlorophe		3.5	U	mg/Kg		8270		09/07	MTT
1,3-Dichlor		3.5	U	mg/Kg		8270		09/07	MTT
1,4-Dichlor		3.5	U	mg/Kg		8270		09/07	MTT
Benzyl Alco		3.5	U	mg/Kg		8270		09/07	MTT
1,2-Dichlor	obenzene	3.5	U	mg/Kg		8270		09/07	MTT
2-Methylphe		3.5	U	mg/Kg		8270		09/07	MTT
	oisopropyl)e	3.5	U	mg/Kg		8270		09/07	MTT
4-Methylphe		3.5	U	mg/Kg		8270		09/07	MTT
n-Nitroso-d	li-n-Propylam	3.5	U	mg/Kg		8270		09/07	MTT
Hexachloroe	thane	3.5	U	mg/Kg		8270		09/07	MTT
Nitrobenzen	e	3.5	U	mg/Kg		8270		09/07	MTT
Isophorone	_	3.5	U	mg/Kg		8270		09/07	MTT
2-Nitrophen	ol	3.5	U	mg/Kg		8270		09/07	MTT
2,4-Dimethy		3.5	U	mg/Kg		8270	08/31	09/07	MTT
Benzoic Aci		3.5	U	mg/Kg		8270		09/07	MTT
Dis(2-Chlor	oethoxy)Meth	3.5	U	mg/Kg		8270		09/07	MTT
2,4-Dichlor		3.5	U	mg/Kg		8270		09/07	MTT
1,2,4-Trich		3.5	U	mg/Kg		8270		09/07	MTT
Naphthalene		3.5	U	mg/Kg		8270		09/07	MTT
4-Chloroani		3.5	Ü	mg/Kg		8270		09/07	MTT
Hexachlorob	utadiene	3.5	U	mg∕Kg	EPA	8270		09/07	MTT
4-CUTOLO-3-	Methylphenol	3.5	U	mg/Kg		8270		09/07	MTT
<u>~~netnyinap</u> l	hthalene 😘 🔭	3.44:			EPA	8270		09/07	MTT
	yclopentadie	3.5	U	mg/Kg		8270		09/07	MTT
2,4,6-Trich	TolobueuoT	3.5	U	mg/Kg	EPA	8270	08/31	09/07	MTT



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4212-3 ANCHORAGE, AK 99518 TEL: (907) 562-2343 Client Sample ID :BTR LF03 SD01 FAX: (907) 561-5301 Matrix :SOIL 08/31 09/07 2,4,5-Trichlorophenol 3.5 U mg/Kg MTT EPA 8270 2-Chloronaphthalene 3.5 U 08/31 09/07 mg/Kg MTT EPA 8270 3.5 U 08/31 09/07 2-Nitroaniline mg/Kg EPA 8270 MTT 3.5 U 08/31 09/07 Dimethylphthalate mg/Kg EPA 8270 MTT Acenaphthylene 3.5 U 08/31 09/07 mg/Kg EPA 8270 MTT 3.5 U 08/31 09/07 2,6-Dinitrotoluene mg/Kg EPA 8270 MTT ... EPA 8270 3.5 U 3-Nitroaniline mg/Kg 08/31 09/07 MTT 3.5 U Acenaphthene mg/Kg EPA 8270 08/31 09/07 MTT 3.5 U 2,4-Dinitrophenol 08/31 09/07 MTT mg/Kg EPA 8270 4-Nitrophenol 3.5 U 08/31 09/07 MTT mg/Kg EPA 8270 3.5 U 08/31 09/07 Dibenzofuran mg/Kg EPA 8270 MTT 3.5 U MTT 2,4-Dinitrotoluene mg/Kg EPA 8270 08/31 09/07 3.5 U Diethylphthalate mg/Kg 08/31 09/07 MTT EPA 8270 3.5 U 4-Chlorophenyl-Phenylet mg/Kg EPA 8270 08/31 09/07 MTT Fluorene 3.5 U mg/Kg EPA 8270 08/31 09/07 MTT 3.5 U 4-Nitroaniline mg/Kg EPA 8270 08/31 09/07 · MTT 3.5 U 08/31 09/07 4,6-Dinitro-2-Methylphe mg/Kg MTT EPA 8270 3.5 U 08/31 09/07 n-Nitrosodiphenylamine mq/Kq EPA 8270 MTT 3.5 U 4-Bromophenyl-Phenyleth mg/Kg **EPA 8270** 08/31 09/07 MTT Hexachlorobenzene 3.5 U 08/31 09/07 MTT mg/Kg EPA 8270 3.5 Pentachlorophenol U 08/31 09/07 MTT mg/Kg EPA 8270 Phenanthrene (A. 3.5 U 08/31 09/07 MTT mg/Kg EPA 8270 3.5 U 08/31 09/07 Anthracene mg/Kg EPA 8270 **5.3.5** U di-n-Butylphthalate 08/31 09/07 mg/Kg **EPA 8270** MTT U 3.5 Fluoranthene mg/Kg 08/31 09/07 MTT **EPA 8270** 3.5 U mg/Kg 08/31 09/07 MTT Pyrene EPA 8270 3.5 U MTT Butylbenzylphthalate mg/Kg 08/31 09/07 EPA 8270 9. 3.5 U 3,3-Dichlorobenzidine 08/31 09/07 MTT mg/Kg **EPA 8270** 3.5 U Benzo(a)Anthracene 08/31 09/07 MTT mg/Kg EPA 8270 3.5 Chrysene U mg/Kg 08/31 09/07 MTT EPA 8270 ். 3**.**5 บ bis(2-Ethylhexyl)Phthal mg/Kg EPA 8270 08/31 09/07 MTT 3.5 U di-n-Octylphthalate ane mq/Kq EPA 8270 08/31 09/07 MTT 3.5 U MTT Benzo(b)Fluoranthene mg/Kg EPA 8270 08/31 09/07 6. **3.5** U 08/31 09/07 MTT Benzo(k)Fluoranthene mg/Kg EPA 8270 3.5 U Benzo(a)Pyrene MTT mg/Kg EPA 8270 08/31 09/07 3.5 U Indeno(1,2,3-cd)Pyrene MTT

mg/Kg

mg/Kg

mg/Kg

EPA 8270

EPA 8270

EPA 8270

Dibenz(a,h)Anthracene

Benzo(g,h,i)Perylene

3.5 U

UA = Unavailable

NA = Not Analyzed

08/31 09/07

08/31 09/07

08/31 09/07

MTT

MTT

LT = Less Than

GT = **Greater** Than



OLOBADO LITALI HUNOR ONO MACO MACO MECATORONIA NEW IEDDEN CONTILICACIONA

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemiab Ref. # :93.4219-13 Client Sample ID :BTR LF03 SD02

Matrix :SOIL

Client Name : ICF KAISER ENGINEERING

Ordered By :RAY MORRIS
Project Name :DEW LINE
Project :BARTER

PWSID :UA

FAX: (907) 561-5301

RUSH Order :69831
Report Completed :08/30/93

Collected :08/18/93 @ 15:45 hrs Received :08/20/93 @ 11:30 hrs

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Barrachan	Results	QC Oual	linite	Method	Allowable Limits	Ext. Date	Anal Date	Init
Parameter	vesmrs	Anar						
Percent Solids	82.8	_	*	SM17 2540G		08/21	08/21	MDU JBH
Hydrocarbons EPH	1940	מ	mg/Kg	3510/3550/8100M		00/21	UO/ 23	UDFI
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.500	U	mg/Kg	EPA 5030/8015m		08/21	08/24	WLS
,						09/21	08/25	SGM
Benzene	0.020	Ü	mg/Kg	EPA 8020			08/25	SGM
Toluene	0.020		mg/Kg	EPA 8020			08/25	SGM
Ethylbenzene	0.020		mg/Kg	EPA 8020 EPA 8020			08/25	SGM
Xylene	0.020		ng/Kg				08/25	SGM
tylene	0.020	U	mg/Kg	EPA 8020		00/21	00, 23	561.
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010			08/25	SGM
1.1 Dichloroethylene	0.020		mg/Kg	EPA 8010			08/25	SGM
1.1 Dichloroethane	0.020		mg/Kg	EPA 8010			08/25	SGM
Chloroform	0.020		mg/Kg	EPA 8010			08/25	SGM
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010	4		08/25	SGM
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010			08/25	SGM
Trichloroethylene	0.020		mg/Kg	EPA 8010			08/25	SGM
1,1,2 Trichloroethane	0.020		mg/Kg	EPA 8010			08/25	SGM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010			08/25	SGM
Tetrachloroethylene	0.020		mg/Kg	EPA 8010			08/25	SGM
Chlorobenzene	0.020) ซ	mg/Kg	EPA 8010		08/21	08/25	SGM
Trichlorofluoromethane	0.020) U	mg/Kg	EPA 8010		08/21	08/25	SGH
Trans12Dichloroethylene	0.020) U	ng/Kg	EPA 8010		08/21	08/25	SGM
1,2 Dichloroethane	0.020	U, (mg/Kg	EPA 8010			08/25	SGM
1,1,1 Trichoroethane	0.020		mg/Kg	EPA 8010			08/25	SGM SGM
Bromodichloromethane	0.020		mg/Kg	EPA 8010			08/25	SGM
Trans1,3Dichloropropene	0.020		mg/Kg	EPA 8010		08/21	08/25	SGM
cis-1,3-Dichloropropene	0.020		mg/Kg	EPA 8010			08/25	SGM
Bromoform	0.020		mg/Kg	EPA 8010			08/25	SGM
1122-Tetrachloroethane	0.02		mg/Kg	EPA 8010			08/25	SGM
Chloromethane	0.02		mg/Kg	EPA 8010			08/25	SGM
Bromoethane	0.02		mg/Kg	EPA 8010		00/21	08/25	SGM
Vinyl Chloride	0.02		mg/Kg	EPA 8010			08/25	SGM
Chloroethane	0.02		mg/Kg	EPA 8010			08/25	SGM
4 Dichlorobenzene	0.02	0 U	mg/Kg	EPA 8010		VO/ 23	00/23	3611



ENVIRONMENTAL LABORATORY SERVICES

0.020

0.020

0.020

Chemlab Ref.# Client Sample ID :BTR LF03 SD02

:93.4219-13

Matrix

:SOIL

2-Chloroethylvinylether

1,3-Dichlorobenzene

1,2-Dichlorobenzene

REPORT of ANALYSIS

mg/Kg

mg/Kg

mg/Kg

ी - 5633 B ST ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

08/21 08/25 08/21 08/25

SGE

EPA 8010 EPA 8010

EPA 8010

08/21 08/25

SGY. SGY.

===	====	======		======
*	Coo	Checial	Instructions	Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyze LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



 $\lambda_{\{s_{i_{1},\ldots,i_{n}\}}}$

REPORT of ANALYSIS

W. Salar

. CENTRAL

Chemlab Ref.#

:93.4215-5

4. E. S. C. C.

Client Sample ID :BTR LF03 SD03

Matrix

:SOIL

5633 B STR. ANCHORAGE, AK 99 TEL: (907) 562-2 FAX: (907) 561-5

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name : RAY MORRIS :DEW LINE

Project# PWSID

BARTER

:UA

RUSH Order

169826

Report Completed :08/27/93 Collected

:08/18/93 **0** 15:58 :08/20/93 @ 11:30

Received Technical Director: STEPHEN C. EDE Released By : With C.

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ir
Percent Solids Hydrocarbons EPH	89.9 2610	D	ng/Kg	SM17 2540G 3510/3550/8100M		08/22	08/22 08/24	
VPH & BTEX Hydrocarbons VPH	6.30		mg/Kg	EPA 8015M/8020 EPA 5030/8015m			08/26	ĥ
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.034 0.089 0.038	U U	ng/Kg ng/Kg ng/Kg ng/Kg ng/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21	08/26 08/26 08/26 08/26	W W W W

See Special Instructions Above See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Than



REPORT of ANALYSIS

Chemlab Ref.# :93.4215-1 Client Sample ID :BTR LF03 SD04

Matrix

:SOIL

ANCHORAGE TEL: (907) 562-; FAX: (907) 561-!

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

PWSID

: RAY MORRIS :DEW LINE :BARTER :UA

RUSH Order

:69826

Report Completed Collected

:08/27/93 :08/18/93

0 16:00

Received :08/20/93 Technical Director: STEPHEN C. EDE Released By : Wall

8 11:30

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

1		•						
<u></u>	Parameter	QC Results Qua	; l Units	Method	Allowable Limits	Ext. Date	Anal Date	ī
	Percent Solids Hydrocarbons EPH	61.8 28600 D	% mg∕Kg	SH17 2540G 3510/3550/8100M		08/22	08/22 08/24	
	VPH & BTEX Hydrocarbons VPH	78.5 	mg/Kg	EPA 8015M/8020 EPA 5030/8015m			08/25	1
	Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.035 U 0.116 0.739 2.02 1.55	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21	08/25 08/25 08/25 08/25 08/25	

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

:93.4215-3

REPORT of ANALYSIS

5633 B STR ANCHORAGE, AK 95 TEL: (907) 562-2

Matrix

Client Sample ID :BTR LF03 SD04 DUPLICATE

:SOIL

FAX: (907) 581-5

Client Name Ordered By

:ICF KAISER ENGINEERING

RUSH Order Report Completed :69826

Project Name

RAY MORRIS :DEW LINE

Collected

:08/27/93 :08/18/93

Project# **PWSID**

:BARTER :UA

Received

e 16:00 :08/20/93 **8** 11:30

Technical Director: STEPHEN
Released By : The Property of the

C. EDE

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. CONCENTRATIONS AND RECOVERIES.

PLEASE SEE QA/QC PACKAGE FOR SPIKING SPIKE DILUTED OUT DUE TO HIGH EPH

CONCENTRATION. 93.4214-9 AND 93.4214-10 SPIKED ON SAME DAY.

QC Allowable Ext. Parameter Anal Results Qual Units Method Limits Date Date II Percent Solids 61.8 SM17 2540G 08/22 Hydrocarbons EPH 20700 D mg/Kg 3510/3550/8100M 08/22 08/24

See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4215-2

REPORT of ANALYSIS

Client Sample ID :BTR LF03 SD04 SPIKE

:SOIL

Matrix

:ICF KAISER ENGINEERING Client Name Ordered By :RAY MORRIS

Project Name Project#

:DEW LINE :BARTER

PWSID

:UA

RUSH Order

:69826 Report Completed

Collected Received

:08/27/93 :08/18/93

@ 16:00 :08/20/93 @ 11:30

ANCHORAGE TEL: (907

FAX: (907) 581-5

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

PLEASE SEE QA/QC PACKAGE FOR SPIKING CONCENTRATIONS AND RECOVERIES. SPIKE DILUTED OUT DUE TO HIGH EPH

CONCENTRATION. 93.4214-9 AND 93.4214-10 SPIKED ON SAME DAY.

 Parameter	Results	Önaj ÖC	Units	Method	Allowable Limits		Anal Date	Ιι
Percent Solids Hydrocarbons EPH	61.8 21700	מ	% mg∕Kg	SM17 2540G 3510/3550/8100M	- 	08/22	08/22 08/25	

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyze LT = Less Than

GT = Greater Than





REPORT of ANALYSIS

Chemlab Ref.# 193.4215-4 lient Sample ID :BTR LF03 SD05

:UA

Hatrix

:SOIL

5633 B STRE ANCHORAGE, AK 99 TEL: (907) 582-2. FAX: (907) 561-5:

Client Name Ordered By

RAY MORRIS

Project Name Project#

PWSID

:DEW LINE :BARTER

:ICF KAISER ENGINEERING

RUSH Order :69826 Report Completed :08/27/93

Collected :08/18/93 **0** 16:05 Received 108/20/93 **8** 11:30 |

Technical Director: STEPHEN, C. EDE Released By : Stelen

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

]	Parameter	Results	QC Qual	. Units	Method	Allowable Limits	Ext. Date	Anal Date	v. .
	Percent Solids Hydrocarbons EPH	56.6 10700	D	ag/Kg	SH17 2540G 3510/3550/8100M			08/22 08/24	Ir
	VPH & BTEX Hydrocarbons VPH	67.9		mg/Kg	EPA 8015M/8020 EPA 5030/8015m			08/25	¥
	Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.040 0.108 0.982 2.97 2.33	U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020			08/25 08/25 08/25 08/25	W W W W

See Sample Remarks Above

Undetected, Reported value is the practical quantification limit. Decondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than





REPORT of ANALYSIS

Chemlab Ref.# :93.4219-11 Client Sample ID :BTR LF03 SD06

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name Project# PWSID

:DEW LINE :BARTER :UA

RUSH Order

:69831

Report Completed Collected

:08/30/93 :08/18/93 @ 15:35 hr: :08/20/93 @ 11:30 hr:

Received Technical Director: STEPHEN/C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL. 183 MG/RG OF EPH

Parameter	Results	QQ BuQ	l Units	Method	Allowable Limits	Ext. Date	Anal Date	T-11
Percent Solids	66.7		*				Date	Init
Hydrocarbons EPH	268		mg/Kg	SM17 2540G			08/21	MDt
VPH & BTEX			37 . 1.9	3510/3550/8100M		08/21	08/25	JBI
Hydrocarbons VPH	0 600			EPA 8015H/8020				
-7-Starbons VFH	0.600	Ü	mg/Kg	EPA 5030/8015m		08/21	08/24	ur e
Benzene	0.030	U	ma /Va			00, 21	00/24	WES
Toluene	0.030		mg/Kg mg/Kg	EPA 8020		08/21	08/24	JLE
Ethylbenzene	0.030		ng/Kg	EPA 8020		08/21	08/24	.T
P&m Xylene	0.030		mg/Kg mg/Kg	EPA 8020		08/21	08/24	J
o-Xylene	0.030	Ü	ng/Kg	EPA 8020		08/21	08/24	JLE
11-3		•	g/ 11g	EPA 8020		08/21	08/24	JLE
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.030	U	mg/Kg	EPA 8010				
1.1 Dichloroethylene	0.030	Ū	mg/Kg	EPA 8010		08/21	08/24	JLE
1,1 Dichloroethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Chloroform	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Carbontetrachloride	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JLE
1, 2 Dichloropropane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Trichloroethylene	0.030	ប	mg/Kg	EPA 8010		08/21	08/24	JLE
1,1,2 Trichloroethane	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Dibromochloromethane	0.030	U	mg/Kg	EPA 8010		08/21		JLE
Tetrachloroethylene Chlorobenzene	0.030	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Trichlorofluoromethane	0.030	U	mg/Kg	EPA 8010		08/21 (08/24	JLE
Trans12Dichloroethylene	0.030	U	mg/Kg	EPA 8010		08/21 (08/24	JLE
1,2 Dichloroethane	0.030	U	mg/Kg	EPA 8010		08/21 (18/24	JLE
1,1,1 Trichoroethane	0.030	U	mg/Kg	EPA 8010		08/21 0 08/21 0	10/24	JLB
Bromodichloromethane	0.030	Ü	mg/Kg	EPA 8010		08/21 0	10/24 10/24	JLB
Trans1,3Dichloropropene	0.030 0.030	Ü	mg/Kg	EPA 8010		08/21 0	10/24 19/24	JLE
cis-1,3-Dichloropropene	0.030		ng/Kg	EPA 8010		08/21 0	10/24 19/24	JLB JLB
Bromotorm	0.030		ng/Kg	EPA 8010		08/21 0		JLB
1122-Tetrachloroethane	0.030		mg/Kg	EPA 8010		08/21 0		JLB
Chloromethane	0.030		mg/Kg	EPA 8010		08/21 0		JLB
Bromoethane	0.030		mg/Kg	EPA 8010		08/21 0		JLB
Vinyl Chloride	0.030	_	mg/Kg mg/Kg	EPA 8010		08/21 0		JLB
Chloroethane	0.030	_	mg/kg Mg/Kg	EPA 8010		08/21 0		JLE
				EPA 8010	(08/21 0	8/24	JLB



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-11 Client Sample ID :BTR LF03 SD06

Matrix :SOIL

5633 B STREET ANCHORAGE. AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.030 t 0.030 t 0.030 t	U mg/Kg U mg/Kg U mg/Kg U mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/21 08/24 JLI 08/21 08/24 JLI 08/21 08/24 JLI 08/21 08/24 JLI
--	-------------------------------	--	--	--

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-10 Client Sample ID :BTR LF03 SD07

:SOIL Matrix

:ICF KAISER ENGINEERING

Client Name :RAY MORRIS Ordered By :DEW LINE Project Name :BARTER Project#

PWSID :UA

:69831 RUSH Order Report Completed :08/30/93

:08/18/93 Collected **:08/**20/93

@ 11:30 Received Technical Director: STEPHEN C. EDE

5633 B ST ANCHORAGE, AK 99518

TEL: (907) 562-2343

FAX: (907) 561-5301

@ 15:42

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN IS NOT

CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Allowable Ext. Anal QC Limits Date Date Ini Results Qual Units Method Parameter 08/21 MDX SM17 2540G 87.3 * Percent Solids 3510/3550/8100M(J)-J.1 08/21 08/26 **JB**! 15.2 mg/Kg Hydrocarbons EPH EPA 8015M/8020 VPH & BTEX 08/21 08/24 WLS EPA 5030/8015m 0.400 U mg/Kg Hydrocarbons VPH 08/21 08/23 JLI **EPA 8020** 0.020 U mg/Kg Benzene 08/21 08/23 JL 0.020 U mg/Kg EPA 8020 Toluene 08/21 08/23 **EPA** 8020 0.020 U mg/Kg Ethylbenzene 1.5 08/21 08/23 EPA 8020 0.020 U mg/Kg p&m Xylene JLE 08/21 08/23 **EPA** 8020 0.020 U mg/Kg o-Xylene EPA 8010 Halogenated Volatile Or 08/21 08/23 JLE EPA 8010 0.020 U mg/Kg Methylene Chloride 08/21 08/23 JLE **EPA 8010** 0.020 U mg/Kg 1,1 Dichloroethylene 08/21 08/23 JLE 0.020 **EPA 8010** mg/Kg 1,1 Dichloroethane 08/21 08/23 JLE **EPA 8010** 0.020 U mg/Kg Chloroform 08/21 08/23 JLE **EPA 8010** 0.020 U mg/Kg Carbontetrachloride JLE 08/21 08/23 **EPA 8010** 0.020 U mg/Kg 1. 2 Dichloropropane 08/21 08/23 JLE **EPA** 8010 0.020 ng/Kg Trichloroethylene 08/21 08/23 JLE 0.020 EPA 8010 U mg/Kg 1,1,2 Trichloroethane 08/21 08/23 JLE EPA 8010 0.020 U mg/Kg Dibromochloromethane 08/21 08/23 JLE EPA 8010 0.020 mg/Kg U Tetrachloroethylene 08/21 08/23 JLE **EPA** 8010 0.020 U mg/Kg Chlorobenzene 08/21 08/23 JLE EPA 8010 Trichlorofluoromethane 0.020 U mg/Kg 08/21 08/23 JLE 0.020 U mg/Kg **EPA** 8010 Trans12Dichloroethylene 08/21 08/23 JLE **EPA 8010** 0.020 mg/Kg 1.2 Dichloroethane 08/21 08/23 JLE **EPA** 8010 0.020 U mg/Kg 1,1,1 Trichoroethane 08/21 08/23 JLE EPA 8010 0.020 U mg/Kg Bromodichloromethane 08/21 08/23 JLE **EPA 8010** mg/Kg Trans1,3Dichloropropene 0.020 U 08/21 08/23 JLE **EPA 8010** cis-1,3-Dichloropropene 0.020 U mg/Kg JLE 08/21 08/23 0.020 **EPA 8010** U mg/Kg Bromoform 08/21 08/24 JLE **EPA** 8010 0.020 U mg/Kg 1122-Tetrachloroethane 08/21 08/24 JLE **EPA 8010** 0.020 U mg/Kg Chloromethane 08/21 08/24 JLE **EPA** 8010 0.020 U mg/Kg Bromoethane JLE 08/21 08/24 **EPA 8010** 0.020 U mg/Kg Vinyl Chloride 08/21 08/24 LE 0.020 U **EPA** 8010 mg/Kg Chloroethane



REPORT of ANALYSIS

Emlab Ref.# :93.4219-10 Client Sample ID :BTR LF03 SD07 Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

1,4 Dichlorobenzene	0.020 U	mg/Kg	EPA 8010	08/21 08/24	ルルルル
2-Chloroethylvinylether	0.020 U	mg/Kg	EPA 8010	08/21 08/23	
1,3-Dichlorobenzene	0.020 U	mg/Kg	EPA 8010	08/21 08/23	
1,2-Dichlorobenzene	0.020 U	mg/Kg	EPA 8010	08/21 08/23	

Gee Special Instructions Above ee Sample Remarks Above

-Undetected, Reported value is the practical quantification limit. = Secondary dilution.

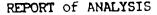
UA = Unavailable NA = Not AnalyzedLT = Less Than GT = Greater Than

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ENVIRONMENTAL LABORATORY SERVICES



:93.4213-3 Chemlab Ref.# Client Sample ID :BTR LF03 SD07

Matrix

:SOIL

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

:RAY MORRIS :DEW LINE

PWSID

:BARTER :UA

WORK Order

Report Completed :09/20/93

Collected Received

:08/18/93

:69842

@ 15:42 h :08/20/93 @ 11:30 h

5633 B STREE

TEL: (907) 562-234

FAX: (907) 561-530

ANCHORAGE, AK 9951

Technical Director: STEPHEN C. EDE Released By : Station

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Sample Remarks. Bills College			•	07 an X				
			£10-8V		Allowable	Ext.	Anal	
		QC		Method	Limits	Date		In
Parameter	Results	Quar	Units ()	MA, Herrion				
Volatile Organics			_	EPA 8260		00/24	08/31	· K
Benzene	0.120	U	mg/Kg√	€EPA 8260			08/31	K
Bromobenzene	0.120	U	mg/Kg	EPA 8260			08/31	K
Bromochloromethane	0.120	U	mg/Kg	EPA 8260			08/31	K
Bromodichloromethane	0.120	U	mg/Kg	EPA 8260			08/31	K
Bromoform	0.120	บ	mg/Kg	EPA 8260			08/31	F
Bromomethane	0.120		mg/Kg	EPA 8260			08/31	k
n-Butylbenzene	0.120		mg/Kg	EPA 8260			08/37	
sec-Butylbenzene	0.120		mg/Kg	EPA 8260			08/31	F F
tert-Butylbenzne	0.120		mg/Kg	EPA 8260			08/31	
Carbon Tetrachloride	0.120		mg/Kg	EPA 8260			08/31	
Chlorobenzene	0.120		mg/Kg	EPA 8260			08/31	
Chloroethane	0.120		mg/Kg	EPA 8260			08/31	
Chloroform .	0.120		mg/Kg	EPA 8260			08/31	
Chloromethane	0.120		mg/Kg	EPA 8260			08/31	
2-Chlorotoluene	0.120		mg/Kg	EPA 8260			08/31	
4-Chlorotoluene	0.120		mg/Kg	EPA 8260			08/31	
Dibromochloromethane	0.120		mg/Kg	EPA 8260	,	00/24	08/31	
12Dibromo3Chloropropane	0.120		mg/Kg	EPA 8260			08/31	
1,2-Dibromoethane	0.120	U	mg/Kg	EPA 8260			1 08/31	
Dibromomethane	0.120		mg/Kg	EPA 8260			1 08/31	
1,2-Dichlorobenzene	0.120		mg/Kg	EPA 8260			1 08/31	
1,3-Dichlorobenzene	0.120		mg/Kg	EPA 8260			4 08/31	_
1,4-Dichlorobenzene	0.120	U	mg/Kg	EPA 8260			4 08/31	
Dichlorodifluoromethane	0.120) U	mg/Kg	EPA 8260			4 08/31	
1,1-Dichloroethane	0.120		mg/Kg	EPA 8260			4 08/31	
1,2-Dichloroethane	0.120) U	mg/Kg	EPA 8260				
1,1-Dichloroethene	0.120	บ (mg/Kg	EPA 8260			4 08/31	-
cis-1,2-Dichloroethene	0.120) บ	mg/Kg	EPA 8260			4 08/31	
trans1,2-Dichloroethene	0.120) U	mg/Kg	EPA 8260			4 08/31	
1,2-Dichloropropane	0.120) บ	mg/Kg	EPA 8260		08/2	4 08/31	. 1
1,3-Dichloropropane	0.120	U C	mg/Kg	EPA 8260			4 08/31	
2,2-Dichloropropane	0.120	U C	mg/Kg	EPA 8260			4 08/31	
1,1-Dichloropropene	0.12	ט כ	mg/Kg	EPA 8260			4 08/31	
Ethylbenzene	0.12	0 U	mg/Kg	EPA 8260			4 08/31	
Hexachlorobutadiene	0.12	U 0	mg/Kg	EPA 8260			4 08/31	
Isopropylbenzene	0.12			EPA 8260		08/2	4 08/1	
p-Isopropyltoluene	0.12		mg/Kg	V VEPA 8260			4 08/3	
b-120broblicotariia				•	0, \	$L_{L_{i}}$		

ENVIRONMENTAL LABORATORY SERVICES

\$ 4.28 - 974	REPORT of ANALYSIS	5633 B STREET ANCHORAGE, AK 99518
Chemlab Ref. # :93.4213-3	. / /	TEL: (907) 562-2343
Client Sample ID :BTR LF03 SD0	0.255 D. market V. J. EPA 8260	FAX: (907) 561-5301
Matrix :SOIL	a will mile	
	200	08/24 08/31 KI
Methylene Chloride	0.233 D	08/24 08/31 KT
Napthalene	0.120 U mg/Kg EPA 8260	08/24 08/31 KI
n-Propylbenzene	0.120 U mg/Kg EPA 8260	08/24 08/31 K
Styrene	0.120 U mg/Kg EPA 8260	
1112-Tetrachloroethane	0.120 U mg/Kg EPA 8260	
1122-Tetrachloroethane	0.120 U mg/Kg EPA 8260	
Tetrachloroethene	5.42 D mg/Kg EPA 8260	08/24 08/31 K
	0.120 U mg/Kg EPA 8260	08/24 08/31 K
Toluene 1,2,3-Trichlorobenzene	0.120 U mg/Kg EPA 8260	08/24 08/31 K
1,2,3-Iriciliorobenzene	0.120 U mg/Kg EPA 8260	08/24 08/31 K
1,2,4-Trichlorobenzene	0.120 U mg/Kg EPA 8260	08/24 08/31 K
1,1,1-Trichloroethane	0.120 U mg/Kg EPA 8260	08/24 08/31 K
1,1,2-Trichloroethane	0.120 U mg/Kg EPA 8260	08/24 08/31 K
Trichloroethene	0.120 U mg/Kg EPA 8260	08/24 08/31 K
Trichlorofluoromethane	0.120 U mg/Kg EPA 8260	08/24 08/31 K
1,2,3-Trichloropropane	0.110	08/24 08/31 K
1,2,4-Trimethylbenzene	- J. J 0000	08/24 08/31 K
1,3,5-Trimethylbenzene		08/24 08/31 K
Vinyl Chloride		08/24 08/31 K
p+m-Xylene	0.110	08/24 08/31 K
o-Xylene	0.120 U mg/Kg V VEPA 8260	00,00
Semivolatile Organics	EPA 8270	08/30 09/16
Phenol	0.460 U mg/Kg EPA 8270	08/30 09/16
bis(2-Chloroethyl)ether	0.460 U mg/Kg EPA 8270	08/30 09/16
2-Chlorophenol	0.460 U mg/Kg EPA 8270	08/30 09/16
1,3-Dichlorobenzene	0.460 U mg/Kg EPA 8270	
1,4-Dichlorobenzene	0.460 U mg/Kg EPA 8270	08/30 09/16
Benzyl Alcohol	1.00 U mg/Kg EPA 8270	08/30 09/16
Bellzyl Alcohor	0.460 U mar/Ka EPA 8270	08/30 09/16
1,2-Dichlorobenzene	0.460 U mg/Kg EPA 8270	08/30 09/16
2-Methylphenol	0.460 U mg/Kg EPA 8270	08/30 09/16
bis(2-Chloroisopropyl)e	0.460 U mg/Kg EPA 8270	08/30 09/16
4-Methylphenol	0.460 U mg/Kg EPA 8270	08/30 09/16
n-Nitroso-di-n-Propylam	0.460 U mg/Kg EPA 8270	08/30 09/16
Hexachloroethane	0.460 U mg/Kg EPA 8270	08/30 09/16
Nitrobenzene	0.460 U mg/Kg EPA 8270	08/30 09/16
Isophorone	0.460 U mg/Kg EPA 8270	08/30 09/16
2-Nitrophenol	0.460 U mg/Kg EPA 8270	08/30 09/16
2,4-Dimethylphenol		08/30 09/16
Benzoic Acid		08/30 09/16
bis(2-Chloroethoxy)Meth		08/30 09/16
2,4-Dichlorophenol		08/30 09/16
1,2,4-Trichlorobenzene		08/30 09/16
Naphthalene		08/30 09/16
4-Chloroaniline	027A	08/30 09/16
Hexachlorobutadiene		08/30 09/16
4-Chloro-3-Methylphenol	0.460 U mg/Kg EPA 8270	08/30 09/16
2-Methylnaphthalene	0.460 U mg/Kg EPA 8270	08/30 09/16
Hexachlorocyclopentadie	0.460 U mg/Kg EPA 8270	08/30 09/16
2,4,6-Trichlorophenol	0.460 U mg/Kg EPA 82/0	08/30 09/16
2,4,5-Trichlorophenol	0.460 U mg/Kg EPA 8270	08/30 09/16
2-Chloronaphthalene	0.460 U mg/Kg EPA 8270	00/30 03/10
Z-CHIOLOR MPHONEL	1	Jau



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

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08/30 09/16

08/30 09/16

Matrix

Chemlab Ref.#

:93.4213-3 Client Sample ID :BTR LF03 SD07

:SOIL

0.460 U 2-Nitroaniline mg/Kg **EPA 8270** 0.460 U Dimethylphthalate mg/Kq EPA 8270 0.460 U Acenaphthylene mg/Kg EPA 8270 0.460 2,6-Dinitrotoluene U mg/Kg EPA 8270 0.460 U 3-Nitroaniline ma/Ka **EPA 8270** 0.460 U Acenaphthene mq/Kq **EPA 8270** 2,4-Dinitrophenol 0.460 U mg/Kg EPA 8270 0.460 U EPA 8270 4-Nitrophenol mg/Kg 0.460 U Dibenzofuran mg/Kg EPA 8270 0.460 U 2,4-Dinitrotoluene mg/Kg EPA 8270 Diethylphthalate 0.460 U mg/Kg EPA 8270 4-Chlorophenyl-Phenylet 0.460 U mg/Kg **EPA** 8270 0.460 U Fluorene mg/Kg EPA 8270 U 4-Nitroaniline 0.460 mg/Kg EPA 8270 U 4,6-Dinitro-2-Methylphe 0.460 mg/Kg **EPA 8270** n-Nitrosodiphenylamine 0.460 U **EPA** 8270 mg/Kg U 4-Bromophenyl-Phenyleth 0.460 mg/Kg **EPA** 8270 U Hexachlorobenzene 0.460 mg/Kg **EPA 8270** Pentachlorophenol 0.460 U mg/Kg **EPA** 8270 **EPA** 8270 Phenanthrene 0.460 U mg/Kg Anthracene 0.460 U **EPA 8270** mg/Kg di-n-Butylphthalate 1.00 u mg/Kg **EPA** 8270 Fluoranthene 0.460 U mg/Kq EPA 8270 0.460 Pyrene U mg/Kg **EPA** 8270 Butylbenzylphthalate 0.460 U mq/Kq **EPA** 8270 3.3-Dichlorobenzidine 0.460 U mq/Kq EPA 8270 Benzo(a)Anthracene 0.460 U mg/Kg EPA 8270 U mg/Kg Chrysene 0.460 **EPA 8270** bis(2-Ethylhexyl)Phthal 1.00 U mg/Kg EPA 8270 0.460 H di-n-Octylphthalate mg/Kg EPA 8270 U Benzo(b)Fluoranthene 0.460 mg/Kg **EPA 8270** Benzo(k)Fluoranthene 0.460 U mq/Kq EPA 8270 0.460 U Benzo(a)Pyrene mg/Kg EPA 8270 Indeno(1,2,3-cd)Pyrene 0.460 U mg/Kg **EPA 8270** 0.460 Dibenz(a,h)Anthracene U mg/Kg EPA 8270

0.460

19500

U

mg/Kg

ppm

08/30 09/16 (08/30 09/16 (08/30 09/16 08/30 09/16 (08/30 09/16 (08/30 09/16 (08/30 09/16 C 08/30 09/16 (08/30 09/16 E 08/30 09/16 Œ 08/30 09/16 Œ 08/30 09/16 Œ 08/30 09/16 e 08/30 09/16 G G 08/30 09/16 08/30 09/16 G 08/30 09/16 G 08/30 09/16 G 08/30 09/16 G 08/30 09/16 G 08/30 09/16 G 08/30 09/16 G 08/30 09/16 G 08/30 09/16 G 08/30 09/16 G G. 08/30 09/16 08/30 09/16 G G 08/30 09/16 G. 08/30 09/16 G 08/30 09/16 08/30 09/16 G. 08/30 09/16 G 08/30 09/16 G.

Benzo(g,h,i)Perylene

TOC, Soil

UA = Unavailable NA = Not Analyzed

08/30 09/16

G'

LT = Less Than **GT** = Greater Than



EPA 8270

PSEP Ref Lab

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



REPORT of ANALYSIS

chemiab Ref.# :93.4219-12 Client Sample ID :BTR LF03 SD08

Matrix :SOIL

RUSH Order :69831 Report Completed :08/30/93

Collected :08/18/93 @ 15:45 hr **:08/**20/93 Received @ 11:30 hr

5633 B STREET

TEL: (907) 562-2343 FAX: (907) 561-5301

ANCHORAGE, AK 99518

Technical Director: STEPHEN C. EDE

Released By :

Client Name Ordered By

:RAY MORRIS :DEW LINE

:ICF KAISER ENGINEERING

Project Name Project# **PWSID**

:BARTER :UA

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini [.]
Percent Solids Hydrocarbons EPH	86.6 2 4 60	D	% mg/Kg	SM17 2540G 3510/3550/8100M		08/21	08/21 08/26	MD: JBI
VPH & BTEX Hydrocarbons VPH	0.429		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	WL
Benzene Toluene	0.020 0.020	U U	mg/Kg mg/Kg	EPA 8020 EPA 8020		08/21 08/21	08/25	S G1 S G1
Ethylbenzene p&m Xylene	0.020	U U	mg/Kg mg/Kg	EPA 8020 EPA 8020		08/21 08/21	08/25	SGI SGI
b-Xylene	0.020	U	mg/Kg	EPA 8020 EPA 8010		08/21	08/25	SGP
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene	0.020 0.020		mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21 08/21		SGY.
1,1 Dichloroethane	0.020	Ü	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21 08/21	08/25	SGK SGK
Carbontetrachloride 1, 2 Dichloropropane	0.020 0.020	U U	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21		sgr Sgr
Trichloroethylene 1,1,2 Trichloroethane	0.020	U	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21 08/21	08/25	SGM SGM
Dibromochloromethane Tetrachloroethylene Chlorobenzene	0.020 0.020 0.020	U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21	08/25	SGM SGM SGM
Trichlorofluoromethane Trans12Dichloroethylene	0.020 0.020	U	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21	08/25 08/25	SGM SGM
1,2 Dichloroethane 1,1,1 Trichoroethane	0.020 0.020	U U	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21 08/21	08/25 08/25	SGM SGM
Bromodichloromethane Trans1,3Dichloropropene	0.020	U	ng/Kg ng/Kg	EPA 8010 EPA 8010		08/21	08/25 08/25	SGM SGM
cis-1,3-Dichloropropene Bromoform	0.020	ប	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21	08/25 08/25 08/25	SGM SGM SGM
1122-Tetrachloroethane Chloromethane Bromoethane	0.020 0.020 0.020	U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/21	08/25 08/25	SGN SGM
Vinyl Chloride Chloroethane	0.020	ប	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21	08/25 08/25	SGM SGM
1,4 Dichlorobenzene	0.020	_	mg/Kg	EPA 8010			08/25	SGM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemiab Ref.# :93.4219-12 Client Sample ID :BTR LF03 SD08

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

2-Chloroethylvinylether	0.020	U	mg ∕Kg	EPA 8010	08/21 08/25 s	ſ
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/25 S	_
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/25 S	

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



SGS Member of the SGS Group (Société Générale de Surveillance)



REPORT of ANALYSIS

memlab Ref.# Client Sample ID :BTR LF03 SW01

:93.4216-6

Matrix

PWSID

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS :DEW LINE :BARTER

:UA

RUSH Order

:69828 Report Completed :08/30/93

Collected Received

:08/18/93 @ 11:50 hrs :08/20/93 @ 11:30 hrs

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL! EPH PATTERN

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal	
Hydrocarbons EPH	₩0.612	79	mg/L	3510 (2550 (010)			Date	Init,
VPH & BTEX			-9/ L	3510/3550/8100M		08/22	08/23	JBH
Hydrocarbons VPH	0.367	WE WAY		EPA 8015M/8020				
,Benzene ·			mg/L	EPA 5030/8015m		08/21	08/24	WLS
Toluene 💮 🔀	0.0027 0.0010		mg/L	EPA 8020		00/22	00 (00	
Ethylbenzene	₹ 0.01 9	U ⊲terre	mg/L	EPA 8020		08/23	08/23	JLB
n Xylene	0.033	SANGEL I	ng/L ng/L	EPA 8020		08/23	08/23	JLB JLB
Xylene	0.0054		mg/L	EPA 8020		08/23	08/23	JLB
Halogenated Volatile Or			9/ 🚨	EPA 8020		08/23	08/23	JLB
nechytene Chlorida	0.0010	••		EPA 8010].
1,1 Dichloroethylene	0.0010	U U	mg/L	EPA 8010		08/23	08/23	JLB
1,1 D1CD1Oroethane	0.0010	บ	mg/L mg/L	EPA 8010		08/23	08/23	JLB
Chloroform	0.0010	Ŭ	mg/L	EPA 8010		08/23	08/23	JLB
Carbontetrachloride 1, 2 Dichloropropane	0.0010	ប	mg/L	EPA 8010 EPA 8010		08/23		JLB
ILICOLOethy) ene	0.0010	U	mg/L	EPA 8010		08/23		JLB
1,1,2 Trichloroethane	0.0010 0.0010	Ü	mg/L	EPA 8010		08/23 08/23	08/23 08/23	JLB
Dibromochloromethane	0.0010	U U	mg/L	EPA 8010		08/23		JLB :
Tetrachloroethylene	0.0010	Ü	nag/L nag/L	EPA 8010		08/23		JLB
Chlorobenzene Trichlorofluoromethane	0.0010	Ū	mg/L	EPA 8010		08/23 (08/23	JLB
Light 201 chloropthulana	0.0010	U	mg/L	EPA 8010 EPA 8010		08/23 (JLB
FIX DICTION OF THE PROPERTY OF	0.0010	U	mg/L	EPA 8010		08/23 (08/23 (ЛВ
	0.0010	endati U	-	EPA 8010		08/23 0		JLB JLB
Bromodichloromethane	0.0010	Ü	mg/L mg/L	EPA 8010		08/23 0		JLB
Trans1, 3Dichloropropene	0.0010	Ü	mg/L	EPA 8010		08/23 0	8/23	JLB :
cis-1,3-Dichloropropene Bromoform	0.0010	U	mg/L	EPA 8010 EPA 8010		08/23 0		JLB
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/23 0		JLB
CILLOTOMethane	0.0010 0.0010		mg/L	EPA 8010		08/23 0 08/23 0		JLB JLB
Bromoethane		_	mg/L	EPA 8010		08/23 0		JLB
Vinyl Chloride Chloroethane	0.0010		mg/L mg/L	EPA 8010		08/23 0		JLB
Dichlorobenzene			ng/L	EPA 8010 EPA 8010		08/23 0		JLB
o rentot obenzene	0.0010		mg/L	EPA 8010		8/23 0		JLB
				GVI V	(08/23 08	3/23	JLB





Chemlab Ref.#

:93.4216-6

Client Sample ID :BTR LF03 SW01

1,3-Dichlorobenzene

1,2-Dichlorobenzene

Matrix

:WATER

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

2-Chloroethylvinylether

0.0010 U mg/L EPA 8010 0.0010 U mg/L EPA 8010 0.0010 U mg/L **EPA 8010**

08/23 08/23 JLE 08/23 08/23 JLP 08/23 08/23 JLB

See Special Instructions Above

See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit.

= Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than

Member of the SGS Group (C



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

hemlab Ref.# :93.4212-4 Client Sample ID :BTR LF03 SW01

Matrix

:WATER

ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

5633 B STREET

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS :DEW LINE :BARTER

PWSID

:UA

WORK Order :69840

Report Completed :10/08/93 Collected :08/18/93

0 11:50 hrs Received :08/20/93 @ 11:30 hrs.

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units		Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics					EPA 8260				
Benzene	0.0025		mg/L	3,	EPA 8260		08/27	09/22	KWM
Bromobenzene	0.0010	U	mg/L		EPA 8260			09/22	KWM
Bromochloromethane	0.0010	U	mg/L		EPA 8260			09/22	KWM
Bromodichloromethane	0.0010	ប	mg/L		EPA 8260			09/22	KWM
Bromoform	0.0010	Ü	mg/L		EPA 8260			09/22	KWM
Bromomethane	0.0010	U	mg/L		EPA 8260			09/22	
n-Butylbenzene	0.0024		mg/L	e#	EPA 8260			09/22	KWM
sec-Butylbenzene	0.0010		mg/L	•	EPA 8260			09/22	KWM
tert-Butylbenzne	0.0010	U	mg/L		EPA 8260				KWM
Carbon Tetrachloride	0.0010	Ū	mg/L		EPA 8260			09/22	KWM
Chlorobenzene	0.0010	Ü	mg/L		EPA 8260			09/22	KWM
Chloroethane	0.0010	Ū	mg/L		EPA 8260			09/22	KWM
Chloroform	0.0010	Ü	mg/L		EPA 8260			09/22 09/22	KWM
Chloromethane	0.0010	U	mg/L		EPA 8260			09/22	KWM
2-Chlorotoluene	0.0010	U	mg/L		EPA 8260			09/22	KWM
4-Chlorotoluene	0.0010	U	mg/L		EPA 8260			09/22	KWM KWM
Dibromochloromethane	0.0010	U	mg/L		EPA 8260			09/22	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L		EPA 8260			09/22	KWM
1,2-Dibromoethane	0.0010	U	mg/L		EPA 8260			09/22	
Dibromomethane	0.0010	ប	mg/L		EPA 8260			09/22	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L		EPA 8260		08/27		KWM
1,3-Dichlorobenzene	0.0010	U	mg/L		EPA 8260		08/27		KWM
1,4-Dichlorobenzene	0.0010	U	mg/L		EPA 8260				KWM
Dichlorodifluoromethane	0.0010	U	mg/L		EPA 8260		08/27 08/27		KWM
1,1-Dichloroethane	0.0010	U	mg/L		EPA 8260		08/27		KWM
1,2-Dichloroethane	0.0039	1	mg/L	. 4	EPA 8260		08/27		KWM
1,1-Dichloroethene	0.0010	Ü	mg/L		EPA 8260		08/27		KWM
cis-1,2-Dichloroethene	0.0010	Ū	mg/L		EPA 8260		08/27		KWM
trans1,2-Dichloroethene	0.0010	U	mg/L		EPA 8260				KWM
1,2-Dichloropropane	0.0010	U	mg/L		EPA 8260		08/27 08/27		KWM
1,3-Dichloropropane	0.0010	Ü	mg/L		EPA 8260		08/27		KWM
2,2-Dichloropropane	0.0010	Ū	mg/L		EPA 8260		08/27		KWM
1,1-Dichloropropene	0.0010	Ü	mg/L		EPA 8260				KWM
Ethylbenzene	0.018	-	mg/L	-	EPA 8260		08/27		KWM
Hexachlorobutadiene	0.0010	U	mg/L	-	EPA 8260		08/27		KWM
Isopropylbenzene	0.0029	_	mg/L	35	EPA 8260		08/27		KWM
	0.0021		mg/L		EPA 8260		08/27		KWM
	_		gr •	•	ALL IN UZUU		08/27	U 3/ Z Z	KWM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-4 Client Sample ID :BTR LF03 SW01

Matrix :WATER 5633 B STREET ANCHORAGE, AK 99518 TEL (907) 562-2343 FAX (907) 561-5301

Methylene Chloride	0.0010	U	mg/L	LDV	8260	08/2	7 09/22	KWM
Napthalene		•	mg/L *		8260	•	7 09/22	KWM
n-Propylbenzene	0.0036		mg/L			•		
Styrene	0.0010	U	mg/L		8260		7 09/22	KWM
1112-Tetrachloroethane	0.0010	Ü			8260		7 09/22	KWM
1122-Tetrachloroethane	0.0010	Ü	mg/L		8260		7 09/22	KWM
Tetrachloroethene	0.0010		mg/L		8260		7 09/22	KWM
Toluene		U	mg/L		8260		7 09/22	KWM
	0.0010	Ü	mg/L		8260		7 09/22	KWM
1,2,3-Trichlorobenzene	0.0010	Ü	mg/L		8260	•	7 09/22	KWM
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA	826 0	08/27	7 09/22	KWM
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA	8260	08/27	7 09/22	KWM
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA	8260	08/27	7 09/22	KWM
Trichloroethene	0.0010	U	mg/L	EPA	8260	08/27	7 09/22	KWM
Trichlorofluoromethane	0.0010	U	mg/L		8260		7 09/22	KWM
1,2,3-Trichloropropane	0.0010	U	mg/L		8260		09/22	KWM
1,2,4-Trimethylbenzene	0.019				8260		09/22	KWM
1,3,5-Trimethylbenzene	0.013			EPA	8260		09/22	KWM
		U	mg/L		8260		09/22	KWM
P+m-Xvlene	0.0010	•	mg/L		8260	_	09/22	KWM
o-Xylene	0.0043		mg/L		8260		09/22	KWM
-			9/ 🗅	ши	0200	00/21	03/22	IZMII
Semivolatile Organics				ED1	8270			
Phenol	0.011	U	mg/L		8270	08/2/	08/25	
bis(2-Chloroethyl)ether	0.011	บ	mg/L		8270		08/25	inel
2-Chlorophenol	0.011	Ü	mg/L		8270		08/25	MTT
1,3-Dichlorobenzene	0.011	Ü	mg/L		8270		08/25	MTT
1,4-Dichlorobenzene	0.011	Ü	mg/L		8270		08/25	MTT
Benzyl Alcohol	0.011	Ü	mg/L					
1,2-Dichlorobenzene	0.011	Ü	mg/L		8270		08/25	MTT
2-Methylphenol	0.011	ប	mg/L		8270		08/25	MTT
bis(2-Chloroisopropyl)e	0.011	Ü			8270		08/25	MTT
4-Methylphenol	0.011	Ü	mg/L		8270		08/25	MTT
n-Nitroso-di-n-Propylam	0.011	Ü	mg/L		8270		08/25	MTT
Hexachloroethane		-	mg/L		8270		08/25	MTT
Nitrobenzene	0.011	Ü	mg/L		8270		08/25	MTT
Isophorone	0.011	U	mg/L		8270		08/25	MTT
2-Nitrophenol	0.011	U	mg/L		8270	· · · · · · · · · · · · · · · · · · ·	08/25	MTT
	0.011	U	mg/L	EPA			08/25	MTT
2,4-Dimethylphenol	0.011	U	mg/L	EPA			08/25	MTT
Benzoic Acid	0.011	U	mg/L	EPA			08/25	MTT
bis(2-Chloroethoxy)Meth	0.011	Ü	mg/L	EPA			08/25	MTT
2,4-Dichlorophenol	0.011	U	mg/L	EPA		•	08/25	MTT
1,2,4-Trichlorobenzene	0.011	U	mg/L	EPA (08/24	08/25	MTT
Naphthalene	0.011	U	mg/L	EPA (8270	08/24	08/25	MTT
4-Chloroaniline	0.011	U	mg/L	EPA (8270		08/25	MTT
Hexachlorobutadiene	0.0106	U	mg/L	EPA (8270	08/24	08/25	MTT
4-Chloro-3-Methylphenol	0.0106	U	mg/L	EPA (08/25	MTT
2-Methylnaphthalene	0.0106	U	mg/L	EPA (8270	08/24	08/25	MTT
Hexachlorocyclopentadie	0.0106	U	mg/L	EPA 8	8270	08/24	08/25	MTT
2,4,6-Trichlorophenol	0.0106	U	mg/L	EPA 8		08/24	08/25	MTT
2,4,5-Trichlorophenol	0.0106	U	mg/L	EPA 8	8270	0 8/24	08/25	Manage
2-Chloronaphthalene	0.0106	U	mg/L	EPA 8	8270		08/25	

7.4



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS emlab Ref.# :93.4212-4 5633 B STREET Client Sample ID :BTR LF03 SW01 ANCHORAGE, AK 99518 Matrix TEL. (907) 562-2343 :WATER FAX (907) 561-5301 2-Nitroaniline 0.0106 U mg/L EPA 8270 Dimethylphthalate 08/24 08/25 MTT 0.0106 U mg/L EPA 8270 08/24 08/25 Acenaphthylene MTT 0.0106 U mq/L EPA 8270 08/24 08/25 2,6-Dinitrotoluene MTT 0.0106 U mg/L EPA 8270 08/24 08/25 3-Nitroaniline MTT 0.0106 U mg/L EPA 8270 08/24 08/25 Acenaphthene MTT 0.0106 U mg/L EPA 8270 2,4-Dinitrophenol 08/24 08/25 MTT 0.0106 П mg/L EPA 8270 08/24 08/25 4-Nitrophenol MTT 0.0106 U mg/L EPA 8270 08/24 08/25 Dibenzofuran MTT 0.0106 U mg/L EPA 8270 08/24 08/25 2,4-Dinitrotoluene MTT 0.0106 mg/L EPA 8270 08/24 08/25 Diethylphthalate MTT 0.0106 U mg/L **EPA 8270** 4-Chlorophenyl-Phenylet 08/24 08/25 MTT 0.0106 U mq/L EPA 8270 08/24 08/25 Fluorene MTT 0.0106 U mg/L EPA 8270 4-Nitroaniline 08/24 08/25 MTT 0.0106 U mg/L EPA 8270 08/24 08/25 4,6-Dinitro-2-Methylphe MTT 0.0106 U mg/L EPA 8270 08/24 08/25 MTT n-Nitrosodiphenylamine 0.0106 U mg/L EPA 8270 08/24 08/25 4-Bromophenyl-Phenyleth ·MTT 0.0106 U mg/L EPA 8270 Hexachlorobenzene 08/24 08/25 MTT 0.0106 U mg/L EPA 8270 Pentachlorophenol 08/24 08/25 MTT 0.0106 U mg/L EPA 8270 Phenanthrene 08/24 08/25 MTT 0.0106 U mg/L EPA 8270 Anthracene 08/24 08/25 TTM 0.0106 mg/L EPA 8270 di-n-Butylphthalate 08/24 08/25 MTT 0.0106 mg/L EPA 8270 08/24 08/25 Fluoranthene MTT 0.0106 U mg/L EPA 8270 08/24 08/25 MTT yrene 0.0106 U mg/L EPA 8270 08/24 08/25 Butylbenzylphthalate MTT 0.0106 U mg/L EPA 8270 08/24 08/25 3,3-Dichlorobenzidine MTT 0.0106 U mg/L EPA 8270 08/24 08/25 MTT Benzo(a)Anthracene 0.0106 U mg/L EPA 8270 08/24 08/25 MTT Chrysene 0.0106 U mg/L EPA 8270 08/24 08/25 bis(2-Ethylhexyl)Phthal MTT 0.0106 H mg/L EPA 8270 08/24 08/25 MTT di-n-Octylphthalate 0.0106 U mg/L EPA 8270 08/24 08/25 Benzo(b)Fluoranthene MTT 0.0106 U mg/L EPA 8270 08/24 08/25 Benzo(k)Fluoranthene MTT 0.0106 U mg/L EPA 8270 08/24 08/25 MTT Benzo(a)Pyrene 0.0106 mg/L EPA 8270 Indeno(1,2,3-cd)Pyrene 08/24 08/25 MTT 0.0106 mg/L EPA 8270 08/24 08/25 MTT Dibenz(a,h)Anthracene 0.0106 U mq/L EPA 8270 08/24 08/25 MTT Benzo(g,h,i)Perylene 0.0106 mg/L EPA 8270 08/24 08/25 MTT TOC, Nonpurgable EPA 9060 ...TOC Range n/a 41.4-57.0 mg/L EPA 9060 ...TOC Concentration 08/31 CMR 48.1 mg/L EPA 9060 08/31 CMR Residue, Non-Filterable 71 mg/L EPA 160.2 08/24 08/24 **GPP** Residue,Filterable(TDS) 847 mg/L EPA 160.1 500 08/24 08/25 **RJK**

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = **Greater** Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4219-8

Client Sample ID :BTR LF03 SW02

Matrix

PWSID

:WATER

5633 8 STREET ANCHORAGE, AK 99518

TEL: (907) 562-2340

FAX: (907) 561-530:

Client Name

:ICF KAISER ENGINEERING

Ordered By

:RAY MORRIS

Project Name Project#

:DEW LINE :BARTER

:UA

RUSH Order Report Completed :69831

:08/30/93

Collected Received

:08/18/93

@ 14:25

Technical Director: STEPHEN C. EDE

:08/20/93 @ 11:30

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

QC Allowable Ext. Anal Parameter Results Qual Units Method Limits | Date Date Ini Hydrocarbons EPH 1.77 3510/3550/8100M mg/L 08/27 08/28 JE VPH & BTEX EPA 8015M/8020 Hydrocarbons VPH 0.020 U EPA 5030/8015m mg/L 08/26 08/26 WL Benzene 0.0010 U mg/L **EPA** 8020 08/26 08/26 WL Toluene 0.0010 U mq/L EPA 8020 08/26 08/26 WL Ethylbenzene 0.0010 U mg/L EPA 8020 08/26 08/26 p&m Xylene 0.0010 U mg/L EPA 8020 08/26 08/26 o-Xylene 0.0010 U mg/L EPA 8020 08/26 08/26

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemiab Ref.# :93.4219-9 Client Sample ID :BTR LF03 SW03

Matrix :WATER

Client Name Ordered By :RAY MORRIS Project Name :DEW LINE Project# :BARTER

PWSID :UA

:ICF KAISER ENGINEERING

RUSH Order :69831 Report Completed

:08/30/93 Collected :08/18/93 @ 15:05 h Received **:08/20/93** @ 11:30 hr

5633 B STREE*

TEL: (907) 562-234:

FAX: (907) 561-530

ANCHORAGE, AK 99512

Technical Director: STEPHEN &. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PAPTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

QC Allowable Ext. Anal Parameter Results Qual Units Method Limits Date Date Ini Hydrocarbons EPH 1.20 3510/3550/8100M mg/L 08/27 08/28 JE VPH & BTEX EPA 8015M/8020 Hydrocarbons VPH 0.020 mg/L EPA 5030/8015m 08/26 08/26 WL Benzene 0.0010 mg/L EPA 8020 08/26 08/26 WL Toluene 0.0010 U mg/L EPA 8020 08/26 08/26 WL Ethylbenzene 0.0010 U mg/L EPA 8020 08/26 08/26 WL m Xylene 0.0010 U mg/L EPA 8020 08/26 08/26 WL. Xylene 0.0010 U mg/L EPA 8020 08/26 08/26 WL

See Special Instructions Above Bee Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

ELMIN.

REPORT of ANALYSIS

* * 3

Chemlab Ref.#

:93.4213-2 Client Sample ID :BTR LF03 SW03

Matrix

:WATER

5633 B S ANCHORAGE, AK 9951 TEL: (907) 562-2340 FAX: (907) 561-530

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project# **PWSID**

:BARTER

:UA

:69842 WORK Order

Report Completed :09/20/93 Collected

:08/18/93 @ 15:05 h :08/20/93 @ 11:30 h Received

Technical Director: STEPHEN C. EDE

Released By: Stown C. The

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KV
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KV
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromodichloromethane	0.0010	U	mg/L	EPA 8260			08/31	KW
Bromoform	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Bromomethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	_ F
tert-Butylbenzne	0.0010	Ü	mg/L	EPA 8260		08/31	08/31	
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260			08/31	The state of the s
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/31		KW
Chloroethane	0.0010	ប	mg/L	EPA 8260		08/31		KW
Chloroform	0.0010	บ	mg/L	EPA 8260		08/31		KW
Chloromethane	0.0010	U	mg/L	EPA 8260			08/31	KW
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260	•	08/31	08/31	KW
4-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260		08/31	08/31	KW
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
Dibromomethane	0.0010	U	mg/L	EPA 8260			08/31	KW
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31	08/31	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			08/31	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/31		KW
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/31		KW.
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/31		KW:
1,2-Dichlorgethane	0.0044		美国的 海湾/	EPA 8260		08/31		KWi
1,1-Dichioroethene	0.0010	U	mg/L	EPA 8260		08/31		KW
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31		KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/31		KW
1,2-Dichloropropane	0.0010	ប	mg/L	EPA 8260		08/31		KWI
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31		KWI
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/31		KWI
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/31		KWI
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/31	-	KWI
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/31		KWI
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/31		KMI
p-Isopropyltoluene	0.0010	U,	mg/L	EPA 8260		08/31	08/31	₩



mg/L

ENVIRONMENTAL LABORATORY SERVICES

0.0010 U

REPORT of ANALYSIS

EPA 8260

Chemlab Ref.# :93.4213-2 Client Sample ID :BTR LF03 SW03

:WATER

Methylene Chloride

5633 B STREE? ANCHORAGE, AK 99518 TEL: (907) 562-2340 FAX: (907) 561-530°

KI

08/31 08/31

	Napthalene	0.0010	Ü	mg/L	EPA 8260		1 08/31	K1
	n-Propylbenzene	0.0010	Ū	mg/L	EPA 8260		1 08/31	K
	Styrene	0.0010	Ŭ	mg/L	EPA 8260	· ·	1 08/31	K!
	1112-Tetrachloroethane	0.0010	Ü	mg/L	EPA 8260		1 08/31	K
	1122-Tetrachloroethane	0.0010	Ü	mg/L	EPA 8260		1 08/31	K)
	Tetrachloroethene	0.0010	Ū	mg/L	EPA 8260		1 08/31	KI.
	Toluene	0.0010	Ū	mg/L	EPA 8260		1 08/31	KI.
	1,2,3-Trichlorobenzene	0.0010	Ü	mg/L	EPA 8260		1 08/31	K¥
	1,2,4-Trichlorobenzene	0.0010	Ū	mg/L	EPA 8260		1 08/31	KI.
	1,1,1-Trichloroethane	0.0010	Ū	mg/L	EPA 8260		1 08/31	KI-
	1,1,2-Trichloroethane	0.0010	Ü	mg/L	EPA 8260		1 08/31	K!
	Trichloroethene	0.0010	Ü	mg/L	EPA 8260		1 08/31	K!
	Trichlorofluoromethane	0.0010	Ü	mg/L	EPA 8260		1 08/31	K!
	1,2,3-Trichloropropane	0.0010	บั	mg/L	EIPA 8260		1 08/31	K
	1,2,4-Trimethylbenzene	0.0010	Ü	mg/L	EPA 8260		1 08/31	KI.
	1,3,5-Trimethylbenzene	0.0010	Ŭ	mg/L	EPA 8260		1 08/31	KK K
	Vinyl Chloride	0.0010	Ü	mg/L	EPA 8260		1 08/31	KK
	p+m-Xylene	0.0010	Ü	mg/L	EPA 8260		1 08/31	KW
	o-Xylene	0.0010	Ü	mg/L	EPA 8260		1 08/31	KW
	•	010020	•	9/ 🏎	12 A 0200	00/3	1 00/31	1711
	Semivolatile Organics				EPA 8270			
7	Phenol	0.010	U	mg/L	EPA 8270	08/2	4 08/25	MT
	bis(2-Chloroethyl)ether	0.010	Ū	mg/L	EPA 8270		4 08/25	MT
	2-Chlorophenol	0.010	Ū	mg/L	EPA 8270		4 08/25	MT
	1,3-Dichlorobenzene	0.010	Ŭ	mg/L	EPA 8270		4 08/25	MT
	1,4-Dichlorobenzene	0.010	Ū	mg/L	EPA 8270		4 08/25	HT
	Benzyl Alcohol	0.010	Ū	mg/L	EPA 8270		4 08/25	MT
	1,2-Dichlorobenzene	0.010	Ū	mg/L	EPA 8270		4 08/25	HT
	2-Methylphenol	0.010	Ü	mg/L	EPA 8270		4 08/25	MT
	bis(2-Chloroisopropyl)e	0.010	Ū	mg/L	EPA 8270		4 08/25	MT
	4-Methylphenol	0.010	U	mg/L	EPA 8270		4 08/25	HT
	n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270		4 08/25	MT
	Hexachloroethane	0.010	U	mg/L	EPA 8270		4 08/25	MT
	Nitrobenzene	0.010	U	mg/L	EPA 8270		4 08/25	HT
	Isophorone	0.010	Ü	mg/L	EPA 8270	-	4 08/25	MT
	2-Nitrophenol	0.010	Ū	mg/L	EPA 8270		4 08/25	MT
	2,4-Dimethylphenol	0.010	Ū	mg/L	EPA 8270		4 08/25	MT
	Benzoic Acid	0.010	Ū	mg/L	EPA 8270		4 08/25	MT
	bis(2-Chloroethoxy)Meth	0.010	Ü	mg/L	EPA 8270		4 08/25	MT
	2,4-Dichlorophenol	0.010	Ü	mg/L	EPA 8270		4 08/25	MT
	1,2,4-Trichlorobenzene	0.010	Ū	mg/L	EPA 8270		4 08/25	MT
	Naphthalene	0.010	Ü	mg/L	EPA 8270		4 08/25	MT
	4-Chloroaniline	0.010	U	mg/L	EPA 8270		4 08/25	MT
	Hexachlorobutadiene	0.010	U	mg/L	EPA 8270		4 08/25	MT
	4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270		4 08/25	MT.
	2-Methylnaphthalene	0.010	Ü	mg/L	EPA 8270		4 08/25	MT
	Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270		4 08/25	MT
	2,4,6-Trichlorophenol	0.010	Ü	mg/L	EPA 8270		4 08/25	MT
À	2,4,5-Trichlorophenol	0.010	Ū,	mg/L	EPA 8270		4 08/25	MT.
,	2-Chloronaphthalene	0.010	Ü	mg/L	EPA 8270		4 08/25	MT
-	-			J		V3/ L	/ 20	



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREE Chemlab Ref.# :93.4213-2 ANCHORAGE, AK 9951. TEL: (907) 562-234: FAX: (907) 561-530 Client Sample ID :BTR LF03 SW03

Matrix :WATER							F	AX: (907) 5	61-530
2-Nitroaniline	0.010	U	mg/L	EPA	8270		08/24	08/25	M.
Dimethylphthalate	0.010	U	mg/L		8270			08/25	M'
Acenaphthylene	0.010	U	mg/L		8270		08/24	08/25	M'
2,6-Dinitrotoluene	0.010	U	mg/L		8270		08/24	08/25	M'
3-Nitroaniline	0.010	U	mg/L		8270	:		08/25	H'
Acenaphthene	0.010	U	mg/L		8270			08/25	H'
2,4-Dinitrophenol	0.010	ប	mg/L		8270			08/25	HT.
4-Nitrophenol	0.010	Ü	mg/L		8270	4 · · · ·		08/25	M
Dibenzofuran	0.010	U	mg/L		8270			08/25	MT
2,4-Dinitrotoluene	0.010	U	mg/L		8270			08/25	M.
Diethylphthalate	0.010	U	mg/L		8270			08/25	MT
4-Chlorophenyl-Phenylet	0.010	U	mg/L		8270			08/25	M?
Fluorene	0.010	U	mg/L		8270	•		08/25	MT.
4-Nitroaniline	0.010	U	mg/L		8270			08/25	MC
4,6-Dinitro-2-Methylphe	0.010	U	mg/L		8270			08/25	
n-Nitrosodiphenylamine	0.010	U	mg/L		8270			08/25	rm.
4-Bromophenyl-Phenyleth	0.010	Ū	mg/L		8270			08/25	ГM
Hexachlorobenzene	0.010	U	mg/L		8270			08/25	ΗT
Pentachlorophenol	0.010	U	mg/L		8270			08/25	ΜT
Phenanthrene	0.010	U	mg/L		8270			08/25	MT
Anthracene	0.010	U	mg/L		8270			08/25	_HT
di-n-Butylphthalate	0.010	U	mg/L		8270			08/25	
Fluoranthene	0.010	U	mg/L		8270			08/25	
Pyrene	0.010	U	mg/L		8270			08/25	MT .
Butylbenzylphthalate	0.010	ប	mg/L	EPA	8270			08/25	MT
3,3-Dichlorobenzidine	0.010	U	mg/L	EPA	8270			08/25	MT
Benzo(a)Anthracene	0.010	U	mg/L	EPA	8270			08/25	MT
Chrysene	0.010	U	mg/L	EPA	8270		08/24	08/25	MT
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA	8270		08/24	08/25	MT
di-n-Octylphthalate	0.010	U	mg/L	EPA	8270		08/24	08/25	MT
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA	8270		08/24	08/25	MT
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA	8270		08/24	08/25	MT
Benzo(a) Pyrene	0.010	U	mg/L	EPA	8270		08/24	08/25	MT
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L		8270		08/24	08/25	MT
Dibenz(a,h)Anthracene	0.010	U	mg/L		8270		08/24	08/25	MT
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA	8270		08/24	08/25	MT
TOC, Nonpurgable				EPA	9060	n/a			
TOC Range	19.3-22.0		mg/L		9060	, 4		08/30	CMI.
TOC Concentration	21.0		mg/L		9060			08/30	CM
Residue, Non-Filterable	123		mcs /T	و دين	160.3		00/24	00/24	CDr
Residue, Filterable (TDS)	::63 7 ⋅		mg/L mg/L		160.2 160.1	500	08/24	08/24	GPI RJI
	2,000		m ∃ / ⊔	ii. N	100.1	200	00/24	VU/ ZJ	KOI

UA = Unavailable

NA = Not AnalyzedLT = Less Than

GT = Greater Than



See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

ICF ID F&BI Number	BTR-LF03-S01 1290	BTR-LF03-2SD09 1678	BTR-LF03-2SD10 1680
Sample Type	soit	soil	soil
Date Received	8/31/93	9/2/93	9/2/93
% Dry Weight	94	25	90
Sequence Date	#6-08/31/93	#5-09/05/93	#5-09/05/93
Leaded Gas			
JP-4	< 50	< 200	< 50
Lube Oil	180 carryover	< 400	< 100
Diesel	12000 6200		<50 丁
Spike Level		, , , , , ,	1330
Unknown Semi-volatile			
Pentacosane	119	80	78
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#1&2-08/31/93	#3&4-09/06/93	#3&4-09/06/93
CCI4		< 0.4	< 0.1
TCA		< 0.4	< 0.1
Benzene	< 0.02	< 0.08	< 0.02
TCE		< 0.4	< 0.1
Toluene	0.08	< 0.08	< 0.02
PCE		< 0.4	< 0.1
Ethylbenzene	0.05	< 0.08	< 0.02
Xylenes	1.17	< 0.2	< 0.04
Gasoline	8195	5428J	4125
Spike level			
BFB	98	81	94

ANALYTICAL DATA SHEETS FOR THE CURRENT LANDFILL (LF04)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4286-3 Client Sample ID :BTR-LF04-SD01

Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS :DEW LINE

Project Name Project# PWSID

:BARTER :UA

WORK Order

Collected

:69965

Report Completed :11/03/93

:08/20/93 @ 15:30 hrs. :08/23/93 @ 13:30 hrs.

Received Technical Director: STEPHEN C. EDE

Released By : Mark C. Gy

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. 8270: HOLDING TIMES WERE EXCEEDED, SAMPLE NOT ANALIZED AS PER CLIENT.

 Parameter	Re s ults	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.200	Ü	mg/Kg	EPA 8260		00/24	00.00	
Bromobenzene	0.200	Ū	mg/Kg	EPA 8260		00/24	09/06 09/06	KWM
Bromochloromethane	0.200	Ū	mg/Kg	EPA 8260				KWM
Bromodichloromethane	0.200	Ū	mg/Kg	EPA 8260			09/06	KWM
Bromororm	0.200	Ū	mg/Kg	EPA 8260			09/06	KWM
Bromomethane	0.200	Ü	mg/Kg	EPA 8260			09/06	KWM
n-Butylbenzene	0.200	Ū	mg/Kg	EPA 8260			09/06	KWM
sec-Butylbenzene	0.200	Ü	mg/Kg	EPA 8260			09/06	KWH
tert-Butylbenzne	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
Carbon Tetrachloride	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
Chlorobenzene	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
Chloroethane	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
Chloroform	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
Chloromethane	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
2-Chlorotoluene	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
4-Chlorotoluene	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
Dibromochloromethane	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
12Dibromo3Chloropropane	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
1,2-Dibromoethane	0.200		mg/Kg	EPA 8260		08/24		KWM
Dibromomethane	0.200	-	mg/Kg	EPA 8260		08/24		KWM
1,2-Dichlorobenzene	0.200	Ü	mg/Kg	EPA 8260		08/24		KWM
1,3-Dichlorobenzene	0.200	-	mg/Kg	EPA 8260		08/24		KWM
1,4-Dichlorobenzene	0.200		mg/Kg	EPA 8260		08/24		KWM
Dichlorodifluoromethane	0.200		mg/Kg	EPA 8260		08/24		KWM
1,1-Dichloroethane	0.200	-	mg/Kg	EPA 8260		08/24		KWM
1,2-Dichloroethane	0.200	_	mg/Kg	EPA 8260		08/24		KWM
1,1-Dichloroethene	0.200	-	mg/Kg	EPA 8260		08/24		KWM
cis-1,2-Dichloroethene	0.200	_	mg/Kg	EPA 8260		08/24		KWM
trans1,2-Dichloroethene	0.200	_	mg/Kg	EPA 8260		08/24		KWM
1,2-Dichloropropane	0.200	_	mg/Kg	EPA 8260		08/24		KWM
1,3-Dichloropropane	0.200		mg/Kg	EPA 8260		08/24		KWM
2,2-Dichloropropane	0.200	-	mg/Kg	EPA 8260		08/24		KWM
1,1-Dichloropropene	0.200	_	mg/Kg			08/24		KWM
 Ethylbenzene	0.200	_	mg/Kg	EPA 8260 EPA 8260		08/24		KWM
 Hexachlorobutadiene	0.200		mg/Kg			08/24		KWM
Isopropylbenzene	0.200	•	mg/Kg	EPA 8260		08/24		KWM
	5.200	J	"'''Y'Y	EPA 8260		08/24	U9/U6	KWM



ENVIRONMENTAL LABORATORY SERVICES

S-NCE 1908				9.67				_
	1	REP(DRT of A	NALYSIS DOC				
Chemlab Ref.# :93.4286-3						MCHO	5633 B S1	TREET
Client Sample ID :BTR-LF04-S	ו מת:					TEI	RAGE, AK .: (907) 56	99518
Matrix :SOIL						FAX	(: (907) 56	1-5301
10020								
p-Isopropyltoluene	0.200	7.7	/77	77. 0260		00/04		
Methylene Chloride		Ü	m g∕K g	EPA 8260		08/24 0		KWH
	0.200	U	mg/Kg	EPA 8260		08/24 0		KWM
Napthalene	0.200	U	mg/Kg	EPA 8260		08/24 0		KWM
n-Propylbenzene	0.200	U	mg/Kg	EPA 8260		08/24 0	9/06	KWM
Styrene	0.200	U	m g/K g	EPA 8260		08/24 0	9/06	KWM
1112-Tetrachloroethane	0.200	U	mg/K g	EPA 8260		08/24 0	9/06	KWM
1122-Tetrachloroethane	0.200	U	mg/Kg	EPA 8260		08/24 0		KWM
Tetrachloroethene	0.200	U	mg/Kg	EPA 8260		08/24 0		KWM
Toluene	0.200	Ū	mg/Kg	EPA 8260		08/24 0		KWM
1,2,3-Trichlorobenzene	0.200	Ü	mg/Kg	EPA 8260				
1,2,4-Trichlorobenzene	0.200	U				08/24 0		KWM
1,1,1-Trichloroethane		_	mg/Kg	EPA 8260		08/24 0		KWM
1,1,2-Trichloroethane	0.200	Ü	mg/Kg	EPA 8260		08/24 0		KWM
Trichloroethane	0.200	U	mg/Kg	EPA 8260		08/24 0		KWM
Trichloroethene	0.200	Ü	mg/Kg	EPA 8260		08/24 0	9/06	KWM
Trichlorofluoromethane	0.200	U	mg/Kg	EPA 8260		08/24 0	9/06	KWM
1,2,3-Trichloropropane	0.200	U	mg/Kg	EPA 8260		08/24 0	9/06	KWM
1,2,4-Trimethylbenzene	0.200	U	mg/Kg	EPA 8260		08/24 0		KWM
1,3,5-Trimethylbenzene	0.200	U	mg/Kg	EPA 8260		08/24 0		KWM
Vinyl Chloride	0.200	Ü	mg/Kg	EPA 8260		08/24 0		KWM
p+m-Xylene	0.200	U	mg/Kg	EPA 8260		08/24 0		KWM
o-Xylene		Ū	mg/Kg	EPA 8260		08/24 0		KWM
		•		2 N 0200		00/24 0	3700	VALL
Sample Preparation				EPA 3050 Digest				
Total Metals Analysis								
ICP Screen, ICF				EPA	n/a			
Aluminum	7500		mg/Kg	EPA 6010	11/ a	00/27 0	0./20	
Antimony	260	U				08/27 0		DFL
Arsenic	26	U	mg/Kg	EPA 6010		08/27 0		DFL
Barium	120	U	mg/Kg	EPA 6010		08/27 0		DFL
Beryllium			mg∕K g	EPA 6010		08/27 0		DFL
Cadmium	13	U	mg/Kg	EPA 6010		08/27 0		DFL
Calcium	13	U	mg/Kg	EPA 6010		08/27 08		DFL
	10000		mg/Kg	EPA 6010		08/27 08		DFL
Chromium		Ü	mg∕Kg	EPA 6010		08/27 08	8/29	DFL
Cobalt		U	mg∕K g	EPA 6010		08/27 08	8/29	DFL
Copper	18		mg/K g	EPA 6010		08/27 08	8/29	DFL
Iron	17000		mg/Kg	EPA 6010		08/27 08		DFL
Lead	26	U	mg/Kg	EPA 6010		08/27 08		DFL
Magnesium	2800		mg/Kg	EPA 6010		08/27 08		DFL
Manganese	380		mg/Kg	EPA 6010		08/27 08		DEL
Molybdenum		U	mg/Kg	EPA 6010		08/27 08		DFL
Nickel	16	-	mg/Kg	EPA 6010		08/27 08		DFL
Potassium		U	mg/Kg	EPA 6010		08/27 08		
Selenium		Ü						DFL
Silver		U	mg/Kg	EPA 6010		08/27 08		DFL
Sodium	870	J	mg/Kg	EPA 6010		08/27 08		DFL
Thallium		7 7	mg/Kg	EPA 6010		08/27 08		DFL
Vanadium		U	mg/Kg	EPA 7841		08/26 08		KAW
Zinc	21	•	mg/Kg	EPA 6010		08/27 08		DFL
44.44	65		mg/Kg	EPA 6010		08/27 08	3/29	DFL
TOC, Soil	100000							
100, 2011	198000		p bu	PSEP Ref Lab				





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-4 Client Sample ID :BTR-LF04-SD02

Matrix

PWSID

:SOIL

:ICF KAISER ENGINEERING

FAX: (907) 551-5301

WORK Order :69965 Report Completed :11/03/93

Collected :08/20/93 @ 19:00 hrs. Received :08/23/93 @ 13:30 hrs.

5633 B STREET

TEL: (907) 562-2343

ANCHORAGE, AK 99518

Technical Director: STEPHEN C. EDE

Released By : C. El

Client Name Ordered By Project Name

Project#

:RAY MORRIS :DEW LINE :BARTER

:UA

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA. CONTAINERS MARKED BTR-LF04-SD02.

8270: HOLDING TIMES WERE EXCEEDED, SAMPLE NOT ANALIZED AS PER CLIENT.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	ij	mg/kg	EPA 8260		00/24	09/09	12T TM
Bromobenzene	0.020	Ü	mg/kg	EPA 8260			09/09	KWM
Bromochloromethane	0.020	Ü	mg/kg	EPA 8260			09/09	KWM
Bromodichloromethane	0.020	Ü	mg/kg	EPA 8260			09/09	KWM
Bromoform	0.020	Ü	mg/kg	EPA 8260			09/09	KWM
Bromomethane	0.020	Ü	mg/kg	EPA 8260			09/09	KWM
n-Butylbenzene	0.020	Ü	mg/kg	EPA 8260			09/09	KWM
sec-Butylbenzene	0.020	Ü	mg/kg	EPA 8260				KWM
tert-Butylbenzne	0.020	Ü	mg/kg	EPA 8260			09/09 09/09	KWM
Carbon Tetrachloride	0.020	Ü	mg/kg	EPA 8260			09/09	KWM
Chlorobenzene	0.020	Ü	mg/kg	EPA 8260		08/24		KWM
Chloroethane	0.020	Ü	mg/kg	EPA 8260		08/24		KWM
Chloroform	0.020	Ü	mg/kg	EPA 8260		08/24		KWM
Chloromethane	0.020	Ū	mg/kg	EPA 8260		08/24		KWM KWM
2-Chlorotoluene	0.020	Ū	mg/kg	EPA 8260		08/24		KWM
4-Chlorotoluene	0.020	Ū	mg/kg	EPA 8260		08/24		KWM
Dibromochloromethane	0.020	Ü	mg/kg	EPA 8260		08/24		KWM
12Dibromo3Chloropropane	0.020	Ū	mg/kg	EPA 8260		08/24		KWM
1,2-Dibromoethane	0.020	U	mg/kg	EPA 8260		08/24		KWM
Dibromomethane	0.020	Ü	mg/kg	EPA 8260		08/24		KWM
1,2-Dichlorobenzene	0.020	U	mg/kg	EPA 8260		08/24		KWM
1,3-Dichlorobenzene	0.020	U	mg/kg	EPA 8260		08/24		KWM
1,4-Dichlorobenzene	0.020	U	mg/kg	EPA 8260		08/24		KWM
Dichlorodifluoromethane	0.020	U	mg/kg	EPA 8260		08/24		KWM
1,1-Dichloroethane	0.020	Ü	mg/kg	EPA 8260		08/24		KWM
1,2-Dichloroethane	0.020	U	mg/kg	EPA 8260		08/24		KWM
1,1-Dichloroethene	0.020	U	mg/kg	EPA 8260		08/24		KWM
cis-1,2-Dichloroethene	0.020	U	mg/kg	EPA 8260		08/24		KWM
trans1,2-Dichloroethene	0.020	U	mg/kg	EPA 8260		08/24		KWM
1,2-Dichloropropane	0.020	U	mg/kg	EPA 8260		08/24		KWM
1,3-Dichloropropane	0.020		mg/kg	EPA 8260		08/24		KWM
2,2-Dichloropropane	0.020	U	mg/kg	EPA 8260		08/24		KWM
1,1-Dichloropropene	0.020	U	mg/kg	EPA 8260		08/24		KWM
Ethylbenzene	0.020		mg/kg	EPA 8260		08/24		KWM
Hexachlorobutadiene	0.020		mg/kg	EPA 8260		08/24		KWM
Isopropylbenzene	0.020		mg/kg	EPA 8260		08/24		KWM
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TOC, Soil

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4286-4 ANCHORAGE, AK 99518 Client Sample ID :BTR-LF04-SD02 TEL: (907) 562-2343 FAX: (907) 561-5301 Matrix :SOIL 0.020 p-Isopropyltoluene mg/kg EPA 8260 08/24 09/09 KWM Methylene Chloride 0.020 U ma/ka EPA 8260 08/24 09/09 KWM Napthalene 0.020 U mg/kg EPA 8260 08/24 09/09 KWM n-Propylbenzene 0.020 U mg/kg EPA 8260 08/24 09/09 KWM 0.020 Styrene U mg/kg EPA 8260 08/24 09/09 KWM EPA 8260 1112-Tetrachloroethane 08/24 09/09 0.020 U mg/kg KWM 1122-Tetrachloroethane 08/24 09/09 0.020 U mg/kg EPA 8260 KWM Tetrachloroethene 0.020 08/24 09/09 U mq/kq EPA 8260 KWM Toluene 0.026 mg/kg EPA 8260 08/24 09/09 KWM 1,2,3-Trichlorobenzene 0.020 U EPA 8260 08/24 09/09 **KWM** mgi/kg 1,2,4-Trichlorobenzene 08/24 09/09 0.020 Ü EPA 8260 KWM mq/kq 1,1,1-Trichloroethane 08/24 09/09 0.020 U EPA 8260 KWM mq/kq 1,1,2-Trichloroethane 08/24 09/09 0.020 11 mg/kg EPA 8260 KWM Trichloroethene 0.020 IJ EPA 8260 08/24 09/09 mg/kg KWM Trichlorofluoromethane 0.020 EPA 8260 08/24 09/09 11 mg/kg KWM 1,2,3-Trichloropropane 0.020 08/24 09/09 U mg/kg EPA 8260 KWM 1,2,4-Trimethylbenzene 0.020 U EPA 8260 08/24 09/09 KWM mg/kg 1,3,5-Trimethylbenzene 0.020 **EPA** 8260 08/24 09/09 ma/ka KWM Vinyl Chloride 0.020 08/24 09/09 П mg/kg EPA 8260 KWM p+m-Xylene 0.020 U mq/kg EPA 8260 08/24 09/09 KWM o-Xylene 0.020 U mg/kg **EPA** 8260 08/24 09/09 KWM Sample Preparation EPA 3050 Digest Total Metals Analysis ICP Screen, ICF EPA n/a Aluminum 1900 08/27 08/29 ma/Ka EPA 6010 EPA 6010 Antimony 55 U mq/Kq 08/27 08/29 DFL Arsenic 5.5 08/27 08/29 U mg/Kg EPA 6010 DFL Barium 08/27 08/29 30 U EPA 6010 mg/Kg DFL Beryllium 2.8 08/27 08/29 П EPA 6010 DFL mg/Kg Cadmium 2.8 EPA 6010 08/27 08/29 mg/Kg DFL Calcium 7200 EPA 6010 08/27 08/29 mg/Kg DFL Chromium 08/27 08/29 3.4 mg/Kg EPA 6010 DFL Cobalt 5.5 08/27 08/29 ma/Ka EPA 6010 DFL Copper 08/27 08/29 9.9 EPA 6010 ma/Ka DFL Iron 4700 **EPA** 6010 08/27 08/29 mq/Kq DFL Lead EPA 6010 08/27 08/29 6.1 mg/Kg DFL Magnesium 3800 08/27 08/29 EPA 6010 DFL mg/Kg Manganese 40 **EPA** 6010 08/27 08/29 mg/Kg DFL Molybdenum 2.8 08/27 08/29 EPA 6010 DFL. mg/Kg Nickel 08/27 08/29 4.6 EPA 6010 mg/Kg DFL Potassium 280 08/27 08/29 EPA 6010 mg/Kg DFL Selenium 5.6 08/27 08/29 U **EPA** 6010 DFL mg/Kg Silver 08/27 08/29 2.8 U **EPA** 6010 mg/Kg DFL Sodium 08/27 08/29 89 mg/Kg EPA 6010 DFL Thallium 0.26 EPA 7841 08/26 08/28 mg/Kg KAW Vanadium 6.3 mg/Kg EPA 6010 08/27 08/29 DFL Zinc 08/27 08/29 31 mg/Kg **EPA** 6010



2860

PSEP Ref Lab

ppm



ENVIRONMENTAL LABORATORY SERVICES

hemlab Ref.#

REPORT of ANALYSIS :93.4616-15

Client Sample ID :BTR-LF04-2SD03

Matrix

PWSID

:SOIL

5633 B STREET ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By

:RAY MORRIS

Project Name Project#

:BARTER

:DEW LINE

:UA

WORK Order

:70612

Report Completed :10/28/93 Collected

:09/03/93

@ 14:00 hrs :09/04/93 @ 11:00 hrs

Received

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	R es ults	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids	87.1		~ %	SM17 2540G				
Hydrocarbons EPH	18.3	Ü	mg/Kg	3510/3550/8100M		00/16	09/07	EAL
Hydrocarbons VPH	0.400	ij	mg/Kg	EPA 5030/8015M			09/21 09/09	JBH
		_	3/ 1/3	a x 3030/001311		03/07	09/09	WLS
Volatile Organics				EPA 8260				
Benzene	0.020	Ü	mg/Kg	EPA 8260		09/07	09/23	MC M
Bromobenzene	0.020	Ü	mg/Kg	EPA 8260			09/23	
Bromochloromethane	0.020	Ū	mg/Kg	EPA 8260			09/23	HCM
Bromodichloromethane	0.020	Ü	mg/Kg	EPA 8260			09/23	HCM
Bromoform	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
Bromomethane	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
n-Butylbenzene	0.020	Ū	mg/Kg	EPA 8260		09/07		MCM
s ec -Butylbenzene	0.020	Ū	mg/Kg	EPA 8260				HCM
tert-Butylbenzne	0.020	Ū	mg/Kg	EPA 8260		09/07		MCM
Carbon Tetrachloride	0.020	Ū	mg/Kg	EPA 8260		09/07		HCH
Chlorobenzene	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
Chloroethane	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
Chloroform	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
Chloromethane	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
2-Chlorotoluene	0.020	Ŭ	mg/Kg	EPA 8260		09/07		HCM
4-Chlorotoluene	0.020	Ü	mg/Kg			09/07		HCM
Dibromochloromethane	0.020	Ü	mg/Kg	EPA 8260 EPA 8260		09/07		HCM
12Dibromo3Chloropropane	0.020	U	mg/Kg			09/07		HCM
1,2-Dibromoethane	0.020	Ü		EPA 8260		09/07		MCM
Dibromomethane	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
1,2-Dichlorobenzene	0.020	Ü	mg/Kg mg/Ka	EPA 8260		09/07		HCM
1,3-Dichlorobenzene	0.020	_	mg/Kg	EPA 8260 EPA 8260		09/07		MCM
1,4-Dichlorobenzene	0.020	-	mg/Kg	EPA 8260		09/07		HCM
Dichlorodifluoromethane	0.020	_	mg/Kg	EPA 8260		09/07		HCM
1,1-Dichloroethane	0.020	_	mg/Kg	EPA 8260		09/07		HCM
1,2-Dichloroethane	0.020	_	mg/Kg	EPA 8260		09/07		HCM
1,1-Dichloroethene	0.020	-	mg/Kg			09/07		HCM
cis-1,2-Dichloroethene	0.020	-	mg/Kg	EPA 8260		09/07		HCM
trans1,2-Dichloroethene	0.020			EPA 8260		09/07		MCM
1,2-Dichloropropane	0.020	_	mg/Kg	EPA 8260		09/07		HCM
1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		09/07		HCM
2,2-Dichloropropane	0.020	_	mg/Kg	EPA 8260		09/07		MCM
	0.020	u	m g/K g	EPA 8260		09/07	09/23	MCM



p+m-Xylene

o-Xylene

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-15 Cl.

Ma

lient Sample ID :BTR-LF04-2 atrix :SOIL	-				ANCHORAGE, AK 99518 TEL: (907) 552-2343 FAX: (907) 551-5301				
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 HCH				
Ethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 HCM				
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 HCM				
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 HCM				
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCH				
Napthalene	0.020	U	m g/K g	EPA 8260	09/07 09/23 HCH				
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 HCM				
Styrene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23 HCH				
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
Toluene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 HCM				
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
1,1,1-Trichloroethane	0.020	Ü	mg/Kg	EPA 8260	09/07 09/23 MCM				
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
Trichloroethene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCM				
1,2,4-Trimethylbenzene	0.020	Ü	mg/Kg	EPA 8260	09/07 09/23 HCM				
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	09/07 09/23 MCH				
Vinyl Chloride	0.020	U	m g/K g	EPA 8260	09/07 09/23 1				

mg/Kg

mg/Kg

EPA 8260

EPA 8260

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

0.020 U

0.020 U

D = Secondary dilution.

UA = Unavailable

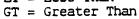
09/07 09/23

09/07 09/23

5633 B STREET

NA = Not Analyzed

LT = Less Than







ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4616-16 Client Sample ID :BTR-LF04-2SD04

Matrix

PWSID

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By

:RAY MORRIS

Project Name Project#

:DEW LINE :BARTER

:UA

WORK Order Report Completed :70612

:10/28/93 :09/03/93

@ 14:30 hrs

Collected Received

:09/04/93

@ 11:00 hrs

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND MY. LEMMA.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.200	U	m g/K g	EPA 8260		00 (07		
	Bromobenzene	0.200	Ū	mg/Kg	EPA 8260			09/23	MCM
	Bromochloromethane	0.200	Ū	mg/Kg	EPA 8260			09/23	HCM
	Bromodichloromethane	0.200	Ü	mg/Kg	EPA 8260			09/23	HCM
	Bromoform	0.200	Ū	mg/Kg	EPA 8260		09/07		MCM
	Bromomethane	0.200	Ū	mg/Kg	EPA 8260		09/07		HCM
	n-Butylbenzene	0.200	Ü	mg/Kg	EPA 8260		09/07		MCM
	sec-Butylbenzene	0.200	Ü	mg/Kg	EPA 8260		09/07		MCH
_	tert-Butylbenzne	0.200	Ŭ	mg/Kg	EPA 8260		09/07		MCM
	Carbon Tetrachloride	0.200	Ü	mg/Kg	EPA 8260		09/07		MCM
	Chlorobenzene	0.200	ŭ	mg/Kg	EPA 8260		09/07		MCM
	Chloroethane	0.200	Ū	mg/Kg	EPA 8260		09/07		HCH
	Chloroform	0.200	Ū	mg/Kg	EPA 8260		09/07		HCM HCM
	Chloromethane	0.200	Ü	mg/Kg	EPA 8260		09/07 09/07		HCH
	2-Chlorotoluene	0.200	U	mg/Kg	EPA 8260		09/07		HC H
	4-Chlorotoluene	0.200	Ū	mg/Kg	EPA 8260		09/07		HCH HCM
	Dibromochloromethane	0.200	U	mg/Kg	EPA 8260		09/07		HC H
	12Dibromo3Chloropropane	0.200	U	mg/Kg	EPA 8260		09/07		HC M
	1,2-Dibromoethane	0.200	Ū	mg/Kg	EPA 8260		09/07		MC M
	Dibromomethane	0.200	U	mg/Kg	EPA 8260		09/07	09/23	MC M
	1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		09/07		MCM
	1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		09/07		HCM
	1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		09/07		HC M HC M
	Dichlorodifluoromethane	0.200	U	mg/Kg	EPA 8260		09/07		MCM
	1,1-Dichloroethane	0.200	ប	mg/Kg	EPA 8260		09/07		MCM
	1,2-Dichloroethane	0.200	U	mg/Kg	EPA 8260		09/07		HCM
	1,1-Dichloroethene	0.200	U	mg/Kg	EPA 8260		09/07		HCH
	cis-1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		09/07		MCM
	trans1,2-Dichloroethene	0.200	U	mg/Kg	EPA 8260		09/07		HCM
	1,2-Dichloropropane	0.200	U	mg/Kg	EPA 8260		09/07		MCM
	1,3-Dichloropropane	0.200	U	mg/Kg	EPA 8260		09/07		HCM
	2,2-Dichloropropane	0.200	Ŭ	mg/Kg	EPA 8260		09/07		HCM
	1,1-Dichloropropene	0.200		mg/Kg	EPA 8260		09/07		HCM
	Ethylbenzene	0.200		mg/Kg	EPA 8260		09/07		HCM
	Hexachlorobutadiene	0.200		mg/Kg	EPA 8260		09/07		HCM
	Isopropylbenzene	0.200		mg/Kg	EPA 8260		09/07		HCM
_	p-Isopropyltoluene	0.200	U	mg/Kg	EPA 8260		09/07		MCM
							, -,	,	



o-Xylene

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

0.200

U

mg/Kg

EPA 8260

REPORT of ANALYSIS Chemlab Ref.# 5633 B STREET :93.4616-16 ANCHORAGE, AK 99518 Client Sample ID :BTR-LF04-2SD04 TEL: (907) 562-2343 Matrix :SOIL FAX: (907) 561-5301 Methylene Chloride 0.200 U mq/Kq EPA 8260 09/07 09/23 **HCM** Napthalene 0.200 mq/Kg EPA 8260 09/07 09/23 MCM n-Propylbenzene 0.200 U mg/Kg **EPA 8260** 09/07 09/23 MCM Styrene 0.200 IJ **EPA** 8260 mg/Kg 09/07 09/23 **HCM** 1112-Tetrachloroethane 0.200 **EPA 8260** U mg/Kg 09/07 09/23 MCM 1122-Tetrachloroethane 0.200 U EPA 8260 09/07 09/23 mg/Kg MCH Tetrachloroethene 0.200 U mg/Kg EPA 8260 09/07 09/23 **MCM** Toluene 0.200 Ü mg/Kg EPA 8260 09/07 09/23 MCM 1,2,3-Trichlorobenzene 0.200 U mq/Kq **EPA** 8260 09/07 09/23 MCM 1,2,4-Trichlorobenzene 0.200 U mg/Kg **EPA** 8260 09/07 09/23 MCM 1,1,1-Trichloroethane 0.200 U EPA 8260 mg/Kg 09/07 09/23 MCM 1,1,2-Trichloroethane 0.200 U EPA 8260 mg/Kg 09/07 09/23 MCM Trichloroethene 0.200 U 09/07 09/23 mg/Kg EPA 8260 MCM Trichlorofluoromethane 0.200 U mg/Kg **EPA** 8260 09/07 09/23 HCM 1,2,3-Trichloropropane 0.200 U mq/Kq EPA 8260 09/07 09/23 MCM 1,2,4-Trimethylbenzene 0.200 mg/Kg EPA 8260 09/07 09/23 HCM 1,3,5-Trimethylbenzene 0.200 U mg/Kg EPA 8260 09/07 09/23 MCM Vinyl Chloride 0.200 U mg/Kg EPA 8260 09/07 09/23 MCM p+m-Xylene 0.200 U mg/Kg EPA 8260 09/07 09/23 MCM

* See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed

09/07 09/23

MCM

LT = Less Than

GT = Cess Than
GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4286-1 Client Sample ID :BTR-LF04-SW01

Matrix

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 552-2343

FAX: (907) 561-5301

WORK Order

Client Name

:ICF KAISER ENGINEERING

:69965

Ordered By Project Name

:RAY MORRIS :DEW LINE

Report Completed :11/03/93

Project#

:BARTER

Collected :08/20/93 @ 15:30 hrs.

PWSID

:UA

Received

:08/23/93 @ 13:30 hrs

Technical Director: STEPHEN C. EDE

Released By : Late C. Ell

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Q R es ults Qu	C al Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics			EPA 8260				
Benzene	0.0010	mg/L	EPA 8260		08/30	08/30	1.77.1M
Bromobenzene	0.0010	mg/L	EPA 8260			08/30	KWM
Bromochloromethane	0.0010 J		EPA 8260			08/30	KWM
Bromodichloromethane	0.0010 U	٠.	EPA 8260			08/30	KWM
Bromoform	0.0010 U		EPA 8260				KWM
Bromomethane	0.0010	5/ -	EPA 8260			08/30	KWM
n-Butylbenzene	0.0010 U	57 🚨	EPA 8260			08/30	KWM
sec-Butylbenzene	0.0010 U	5,	EPA 8260			08/30	KWM
tert-Butylbenzne	0.0010 U	5, —	EPA 8260			08/30	KWM
Carbon Tetrachloride	0.0010 U		EPA 8260			08/30	KWM
Chlorobenzene	0.0010 U		EPA 8260			08/30	KWM
Chloroethane	0.0010 U		EPA 8260			08/30	KWM
Chloroform	0.0010 U		EPA 8260			08/30	KWM
Chloromethane	0.0010 U		EPA 8260			08/30	KWM
2-Chlorotoluene	0.0010 U	5, -	EPA 8260			08/30	KWM
4-Chlorotoluene	0.0010 U		EPA 8260			08/30	KWM
Dibromochloromethane	0.0010 7		EPA 8260		00/30	08/30 08/30	KWM
12Dibromo3Chloropropane	0.0010 y	J	EPA 8260				KWM
1,2-Dibromoethane	0.0010		EPA 8260			08/30	KWM
Dibromomethane	0.0010 U		EPA 8260		08/30	08/30	KWM
1,2-Dichlorobenzene	0.0010 U	5, -	EPA 8260		08/30		KWM
1,3-Dichlorobenzene	0.0010 U	5, 🖴	EPA 8260		08/30		KWM
1,4-Dichlorobenzene	0.0010 !!	mg/L	EPA 8260		08/30		KWM
Dichlorodifluoromethane	0.0010 U	mg/L	EPA 8260		08/30		KWM
1,1-Dichloroethane	0.0010 U		EPA 8260		08/30		KWM
1,2-Dichloroethane	0.0026	mg/L	EPA 8260		08/30		KWM
1,1-Dichloroethene	0.0010 U	mg/L	EPA 8260		08/30		KWM
cis-1,2-Dichloroethene	0.0010 U	mg/L	EPA 8260		08/30		KWM
trans1,2-Dichloroethene	0.0010 U	mg/L	EPA 8260		08/30		KWM
1,2-Dichloropropane	0.0010 U	mg/L	EPA 8260		08/30		KWM
1,3-Dichloropropane	0.0010 U	mg/L	EPA 8260		08/30		KWM
2,2-Dichloropropane	0.0010 U	mg/L	EPA 8260		08/30		KWM
1,1-Dichloropropene	0.0010 U	mg/L	EPA 8260		08/30		KWM
Ethylbenzene	0.0010 U	mg/L	EPA 8260		08/30		KWM
Hexachlorobutadiene	0.0010 U	mg/L	EPA 8260		08/30		KWM
Isopropylbenzene	0.0010 U	mg/L	EPA 8260				KWM
p-Isopropyltoluene	0.0010 U	mg/L	EPA 8260		08/30		KWM
	0.0020	g/ L	ELA 0200		08/30	00/30	KWM



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref. #

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

:93.4286-1 Client Sample ID :BTR-LF04-SW01

:WATER

HALLIX : WAILL						
Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/30 08/30	KWM
Napthalene	0.0010	Ü	mg/L	EPA 8260	08/30 08/30	KWM
n-Propylbenzene	0.0010	Ü	mg/L	EPA 8260	08/30 08/30	KWM
Styrene	0.0010	Ü	mg/L	EPA 8260	08/30 08/ 30	KWM
1112-Tetrachloroethane		Ü	mg/L	EPA 8260	08/30 08/30	KWM
1122-Tetrachloroethane		Ü	mg/L	EPA 8260	08/30 08/30 08/30 08/30	KWM
Tetrachloroethene	0.0010	Ü			08/30 08/30	KWM
Toluene	0.0010	Ū	mg/L	EPA 8260		
1,2,3-Trichlorobenzene			mg/L	EPA 8260	08/30 08/30	KWH
1,2,4-Trichlorobenzene		Ü	mg/L	EPA 8260	08/30 08/30	KWM
1,1,1-Trichloroethane		U	mg/L	EPA 8260	08/30 08/30	KWM
	0.0010	Ü	mg/L	EPA 8260	08/30 08/30	KWH
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/30 08/ 30	KWM
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/30 08/30	KWM
Trichlorofluoromethane		Ū	mg/L	EPA 8260	08/30 08/30	KWM
1,2,3-Trichloropropane	0.0010	IJ	mg/L	EPA 8260	08/30 08/30	KWM
1,2,4-Trimethylbenzene		Ü	mg/L	EPA 8260	08/30 08/30	KWM
1,3,5-Trimethylbenzene		IJ	mg/L	EPA 8260	08/30 08/30	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/30 08/30	KWM
p+m-Xylene	0.0010	Ü	mg/L	EPA 8260	08/30 08/30	KWH
o-Xylene	0.0010	Ü	mg/L	EPA 8260	08/30 08/ 30	KWM
Semivolatile Organics				EPA 8270		
Phenol	0.022	U	mg/L	EPA 8270	08/26 09/ 03	
bis(2-Chloroethyl)ethe	er 0.022	U	mg/L	EPA 8270	08/26 09/03	GV
2-Chlorophenol	0.022	Ū	mg/L	EPA 8270	08/26 09/03	GV
1,3-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/26 09/03	GV
1,4-Dichlorobenzene	0.022	Ū	mg/L	EPA 8270	08/26 09/03	GV
Benzyl Alcohol	0.022	U	mg/L	EPA 8270	08/26 09/03	G V
1,2-Dichlorobenzene	0.022	U	mg/L	EPA 8270	08/26 09/03	G V
2-Methylphenol	0.022	U	mg/L	EPA 8270	08/26 09/03	G V
<pre>bis(2-Chloroisopropyl)</pre>	e 0.022	U	mg/L	EPA 8270	08/26 09/ 03	G V
4-Methylphenol	0.022	U	mg/L	EPA 8270	08/26 09/03	G V
n-Nitroso-di-n-Propyla	em 0.022	U	mg/L	EPA 8270	0 8/ 26 09/ 03	GV
Hexachloroethane	0.022	U	mg/L	EPA 8270	08/26 09/ 03	GV
Nitrobenzene	0.022	U	mg/L	EPA 8270	08/26 09/03	G V
Isophorone	0.022	U	mg/L	EPA 8270	08/26 09/03	G V
2-Nitrophenol	0.022	U	mg/L	EPA 8270	08/26 09/03	G V
2,4-Dimethylphenol	0.022	U	mg/L	EPA 8270	08/26 09/03	GV
Benzoic Acid	0.022	U	mg/L	EPA 8270	0 8/ 26 09/ 03	GV ·
bis(2-Chloroethoxy)Met	th 0.022	U	mg/L	EPA 8270	08/26 09/03	GV
2,4-Dichlorophenol	0.022	U	mg/L	EPA 8270	0 8/ 26 09/ 03	GV
1,2,4-Trichlorobenzene		U	mg/L	EPA 8270	08/26 09/03	GV
Naphthalene	0.022	U	mg/L	EPA 8270	08/26 09/03	G V
4-Chloroaniline	0.022	U	mg/L	EPA 8270	08/26 09/03	GV
Hexachlorobutadiene	0.022	U	mg/L	EPA 8270	08/26 09/03	GV
4-Chloro-3-Methylpheno		U	mg/L	EPA 8270	08/26 09/03	GV
2-Methylnaphthalene	0.022	U	mg/L	EPA 8270	08/26 09/03	GV
Hexachlorocyclopentadi		Ü	mg/L	EPA 8270	08/26 09/03	GV
2,4,6-Trichlorophenol	0.022	U	mg/L	EPA 8270	08/26 09/03	GV
2,4,5-Trichlorophenol	0.022	Ü	mg/L	EPA 8270	08/26 09/03	GV
2-Chloronaphthalene	0.022	U	mg/L	EPA 8270	08/26 09/03	





			<u> </u>		
SINCE 1908	RE	PORT of ANALY	SIS DUG		B STREET
Chemlab Ref.# :93.4286-1-		'd :-!	/	ANCHORAGE	
Client Sample ID :BTR-LF04-SV	701	-21 3			7) 562-23-3
Matrix :WATER		Quedified.		FAX: (90)	7) 561-5301
18367.27		्रे हैं।			
2-Nitroaniline	0.022	U mg/L	EPA 8270	0 8/26 09/0	
Dimethylphthalate		U mg/L	EPA 8270	0 8/26 09/9	
Acenaphthylene		U mg/L	EPA 8270	. 08/26 09/	
2.6-Dinitrotoluene		U mg/L	EPA 8270	08/26 09/	
3-Nitroaniline		U mg/L	EPA 8270	08/26 09/	
Acenaphthene		U mg/L	EPA 8270	08/26 09/	
2,4-Dinitrophenol		U mg/L	EPA 8270	08/26 09/	
4-Nitrophenol		U mg/L	EPA 8270	08/26 09/	
Dibenzofuran		U mg/L	EPA 8270	08/26 09/	
2,4-Dinitrotoluene		U mg/L	EPA 8270	08/26 09/	
Diethylphthalate		U mg/L	EPA 8270	08/26 09/	
4-Chlorophenyl-Phenylet		U mg/L	EPA 8270	08/26 09/	
Fluorene		U mg/L	EPA 8270	08/26 09/	
4-Nitroaniline		U mg/L	EPA 8270	08/26 09/	
4,6-Dinitro-2-Methylphe		U mg/L	EPA 8270	08/26 09/	
n-Nitrosodiphenylamine		U mg/L	EPA 8270	08/26 09/	
4-Bromophenyl-Phenyleth	0.022	U mg/L	EPA 8270	08/26 09/	
Hexachlorobenzene		U mg/L	EPA 8270	08/26 09/	
Pentachlorophenol		U mg/L	EPA 8270	08/26 09/	
Phenanthrene	0.022	U mg/L	EPA 8270	08/26 09/	
Anthracene		U mg/L	EPA 8270	08/26 09/	
di-n-Butylphthalate		U mg/L	EPA 8270	08/26 09/	
Fluoranthene		U mg/L	EPA 8270	08/26 09/	
Pyrene		U mg/L	EPA 8270	08/26 09/	
Butylbenzylphthalate		U mg/L	EPA 8270	08/26 09/	
3,3-Dichlorobenzidine	0.022	U mg/L	EPA 8270	08/26 09/	/03 GV
Benzo(a)Anthracene	0.022	U mg/L	EPA 8270	08/26 09/	
Chrysene	0.022	U mg/L	EPA 8270	08/26 09/	
bis(2-Ethylhexyl)Phthal	0.022	U mg/L	EPA 8270	08/26 09/	
di-n-Octylphthalate	0.022	U mg/L	EPA 8270	08/26 09/	
Benzo(b)Fluoranthene	0.022	U mg/L	EPA 8270	08/26 09/	/03 GV
Benzo(k)Fluoranthene	0.022	U mg/L	EPA 8270	08/26 09	
Benzo(a)Pyrene	0.022	U mg/L	EPA 8270	08/26 09/	
Indeno(1,2,3-cd)Pyrene	0.022	U mg/L	EPA 8270	08/26 09	
Dibenz(a,h)Anthracene	0.022	U mg/L	EPA 8270	08/26 09	/03 GV
Benzo(g,h,i)Perylene	0.022	U mg/L	EPA 8270	08/26 09	/03 GV
Total Metals Analysis			-		
ICP Screen, ICF			EPA	n/a	(2.0 51.0
Aluminum	0.74	U J mg/L J.i		08/28 08	
Antimony	0.1	U J mg/L	EPA 6010	08/28 08	
Arsenic	0.1	U J mg/L	EPA 6010	08/28 08	
Barium	0.15	J mg/L	EPA 6010	08/28 08	
Beryllium	0.05	U I mg/L	EPA 6010	08/28 08	/30 DLG
Cadmium	0.05	U J mg/L	EPA 6010	08/28 08	
Calcium	120	J mg/L	EPA 6010	08/28 08	30 DLG
Chromium	0.05	U J mg/L	EPA 6010	08/28 08	30 DLG
Cobalt	0.1	U J mg/L	EPA 6010	08/28 08	3/30 DLG
Copper	0.05	U J mg/L	EPA 6010	08/28 08	3/30 DLG
Iron	21	J mg/L	EPA 6010	08/28 08	
Lead	0.01	U J mg/L J.	EPA 6010	08/28 08	3/30 DLG
					

All chaps s.c 2/2/94

ENVIRONMENTAL LABORATORY SERVICES

				5533 B STRE	
SACE 1908	REPORT of ANA	REPORT of ANALYSIS			
/chemlab Ref.# :93.4286-1				ANCHORAGE, AK 995 TEL: (907) 562-23	343
client Sample ID :BTR-LF04-S	5W01 2 mg/L 3			FAX: (907) 561-53	3 01
Matrix :WATER	3) (5				
	·	` EPA 6010			DLG
Magnesium	41 J mg/L J	(EPA 6010 EPA 6010		40/20	DLG
Manganese	7.0 3 mar =	EPA 6010		 ,	DLG
Holybdenum	0.05 U mg/L 0.05 U mg/L	EPA 6010		00/20 00/0	DLG
Nickel	0.05 U mg/L 5.2 mg/L	EPA 6010			DLG
Potassium	0.1 U mg/L	EPA 6010			DLG DLG
Selenium	0.05 U mg/L	EPA 6010		08/28 08/30	DLG DLC
Silver	100 mg/L	EPA 6010		08/28 08/30	DLG
Sodium	0.005 U mg/L	EPA 7841		08/28 08/30	KAW DLG
Thallium	0.05 U mg/L	EPA 6010		08/28 08/30	DLG
Vanadium	0.05 U J mg/L	EPA 6010		08/28 08/30	DLG
Zinc	0.03 C 3				
Dissolved Metals Analys		-	n/a		
ICP Screen, ICF		EPA 1.i EPA 6010	1., -	0 8/28 08/30	DLG
Aluminum	0.1 U J mg/L	EPA 6010		08/ 28 08/30	·DLG
Antimony	0.1 U mg/L	EPA 6010		08 /28 08/30	DLG
Arsenic	0.1 U mg/L	EPA 6010		08/28 08/30	DLG
Barium	0.061 mg/L	EPA 6010		08/28 08/30	DLG
Beryllium	0.05 U mg/L 0.05 U mg/L	EPA 6010		08/28 08/30	DLG
Cadmium		EPA 6010		08/28 08/30	DLG
Calcium	120 mg/L 0.05 U mg/L	EPA 6010		08/28 08/30	
Chromium	0.1 U mg/L	EPA 6010		08/28 08/30	
Cobalt	0.05 U mg/L	EPA 6010		08/28 08/30	DLG
Copper	0.89 mg/L	EPA 6010		08/28 08/30	DLG
Iron	0.1 U mg/L	EPA 6010		08/28 08/30	DLG DLG
Lead	41 mg/L	EPA 6010		08/28 08/30	DLG
Magnesium	0.26 mg/L	EPA 6010	•	08/28 08/30 08/28 08/30	DLG
Manganese	0.05 U mg/L	EPA 6010		08/28 08/30	DLG
Molybdenum	0.05 U mg/L	EPA 6010		0B/2B 0B/30	DLG
Nickel Potassium	5 U mg/L	EPA 6010		08/28 08/30	DLG
Selenium	0.1 U mg/L	EPA 6010		08/28 08/30	DLG
Silver	0.05 U mg/L	EPA 6010		08/28 08/30	DLG
Sodium	100 mg/L	EPA 6010		08/28 08/30	KAW
Thallium	0.005 U mg/L	EPA 7841		08/28 08/30	DLG
Vanadium	0.05 U mg/L	EPA 6010		08/28 08/30	DLG
Zinc	0.05 U mg/L	7.\ EPA 6010		00,00	
		EPA 9060	n/a	AA /31	CKD.
TOC, Nonpurgable	22.2-25.1 mg/L	EPA 9060		08/31	CMR
TOC Range	23.4 mg/L	EPA 9060		08/31	CMR
TOC Concentration	## 2 mg/ L			00/24 00/24	GPP
Residue, Non-Filterable	156 mg/L	EPA 160.2		08/24 08/24 08/27	RJK
Residue, Filterable (TDS)	905 mg/L	EPA 160.1	500	00/21	1/01/
RESIDUE, FILCETEDIC (199)	- · · · · · · · · · · · · · · · · · · ·				
		1		,	

pl dep se 2/2/94

NA = Not Analyzed

LT = Less Than GT = Greater Than

^{*} See Special Instructions Above

^{**} See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4286-2 Client Sample ID :BTR-LF04-SW02

Matrix

:WATER

ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

5633 B STREET

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

:69965

Report Completed :11/03/93 Collected

:08/20/93 @ 21:00 hrs. :08/23/93 @ 13:30 hrs.

Received Technical Director: STEPHEN C. EDE

Released By : Starte S. Tale

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260		~~~~		
	Benzene	0.0010	IJ	mg/L	EPA 8260		00/20	08/30	177334
	Bromodenzene	0.0010	Ü	mg/L	EPA 8260			08/30	KWM
	Bromochloromethane	0.0010	IJ	mg/L	EPA 8260			08/30	KWM
	Bromodichloromethane	0.0010	Ū	mg/L	EPA 8260			08/30	KWM
	Bromoform	0.0010	Ū	mg/L	EPA 8260			08/30	KWM
	Bromomethane	0.0010	Ü	mg/L	EPA 8260			08/30	KWM KWM
	n-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			08/30	
	sec-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			08/30	KWM
	tert-Butylbenzne	0.0010	U	mg/L	EPA 8260			08/30	KWM
	Carbon Tetrachloride	0.0010	Ū	mg/L	EPA 8260		08/30		KWM
	Chlorobenzene	0.0010	Ū	mg/L	EPA 8260			08/30	KWM
	Chloroethane	0.0010	Ū	mg/L	EPA 8260		08/30		KWM
	Chloroform	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	Chloromethane	0.0010	Ū	mg/L	EPA 8260		08/30		KWM
	2-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	4-Chlorotoluene	0.0010	IJ	mg/L	EPA 8260				KWM
	Dibromochloromethane	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	12Dibromo3Chloropropane	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	1,2-Dibromoethane	0.0010	ü	mg/L	EPA 8260		08/30		KWM
	Dibromomethane	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	1,2-Dichlorobenzene	0.0010	IJ	mg/L	EPA 8260		08/30		KWM
	1,3-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	1,4-Dichlorobenzene	0.0010	IJ	mg/L	EPA 8260		08/30		KWM
	Dichlorodifluoromethane	0.0037	J	mg/L	EPA 8260		08/30		KWM
	1,1-Dichloroethane	0.0010	[]	mg/L	EPA 8260		08/30		KWM
	1,2-Dichloroethane	0.0027	J	mg/L	EPA 8260		08/30		KWM
	1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/30		KWM
	cis-1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	trans1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	1,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	2,2-Dichloropropane	0.0010	Ŭ	mg/L	EPA 8260		08/30		KWM
	1,1-Dichloropropene	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	Ethylbenzene	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
	Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/30		KWM
	Isopropylbenzene	0.0010	Ü	mg/L	EPA 8260		08/30		KWM
_	p-Isopropyltoluene	0.0011	-	mg/L	EPA 8260		08/30		KWM
				y/ L	EFM 0200		08/30	00/30	KWM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4286-2 Client Sample ID :BTR-LF04-SW02

Matrix :WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix	:WATER							(,	
Methylene C	Chloride	0.0010	U	mg/L	EPA	8260	08/30	08/30	KWM
Napthalene		0.0010	Ü	mg/L		8260		08/30	KWM
n-Propylber	nzene	0.0010	Ü	mg/L		8260		08/30	KWH
Styrene		0.0010	Ü	mg/L		8260		08/30	KWM
	chloroethane	0.0010	Ū	mg/L		8260		08/30	KWM
	chloroethane	0.0010	Ü	mg/L		8260		08/30	KWM
Tetrachloro		0.0010	Ü	mg/L		8260		08/30	KWM
Toluene		0.0013		mg/L		8260		08/30	KWM
	lorobenzene	0.0010	U	mg/L		8260		08/30	KWM
	lorobenzene	0.0010	Ü	mg/L		8260		08/30	KWM
1,1,1-Trich			_			8260		08/30	KWM
1,1,2-Trich		0.0010	Ü	mg/L		8260		08/30	KWM
Trichloroet		0.0010	U	mg/L		8260		08/30	KWM
		0.0060		mg/L					
	uoromethane	0.0010	U	mg/L		8260		08/30	KWM
	loropropane	0.0010	IJ	mg/L		8260		08/30	KWM
	thylbenzene	0.0010	IJ	mg/L		8260		08/30	KWM
	thylbenzene	0.0010	n	mg/L		8260		08/30	KWM
Vinyl Chlor p+m-Xylene	ride	0.0010	U	mg/L		8260		08/30 08/30	KWM
		0.0010	U	mg/L		8260			KWH
o-Xylene		0.0010	ប	mg/L	EPA	8260	08/30	08/30	KWM
Semivolatil	e Organics					8270			
Phenol		0.022	U	mg/L		8270		09/03	
	oethyl)ether	0.022	U	mg/L		8270		09/03	GV
2-Chlorophe		0.022	U	mg/L		8270		09/03	GV
1,3-Dichlor		0.022	U	mg/L		8270		09/03	GV
1,4-Dichlor		0.022	U	mg/L		8270		09/03	GV
Benzyl Alco		0.022	U	mg/L		8270		09/03	GV
1,2-Dichlor		0.022	U	mg/L		8270		09/03	GV
2-Methylphe		0.022	U	mg/L		8270		09/03	GV
	oisopropyl)e	0.022	IJ	mg/L		8270		09/03	G V
4-Methylphe		0.022	IJ	mg/L		8270		09/03	G V
	ii-n-Propylam	0.022	U	mg/L		8270		09/03	GV
Hexachloroe	thane	0.022	U	mg/L		8270		09/03	GV
Nitrobenzen	ie	0.022	U	mg/L		8270		09/03	GV
Isophorone		0.022	U	mg/L		8270		09/03	GV
2-Nitrophen		0.022	U	mg/L		8270		09/03	GV
2,4-Dimethy	lphenol	0.022	Ü	mg/L		8270		09/03	GV
Benzoic Aci		0.022	U	mg/L		8270		09/03	g v
bis(2-Chlor	oethoxy)Meth	0.022	U	mg/L		8270		09/03	GV
2,4-Dichlor		0.022	U	mg/L		8270		09/03	GV
	lorobenzene	0.022	U	mg/L		8270		09/03	GV
Naphthalene		0.022	U	mg/L		8270		09/03	GV
4-Chloroani		0.022	U	mg/L		8270		09/03	GV
Hexachlorob		0.022	U	mg/L		8270		09/03	GV
	Methylphenol	0.022	U	mg/L		8270		09/03	GV
2-Methylnap		0.022	U	mg/L		8270		09/03	GV
	yclopentadie	0.022	U	mg/L		8270		09/03	GV
2,4,6-Trich		0.022	U	mg/L		8270		09/03	GV
2,4,5-Trich		0.022	U	mg/L		8270		09/03	GV.
2-Chloronap	hthalene	0.022	Ü	mg/L	EPA	8270	08/26	09/03	



ENVIRONMENTAL LABORATORY SERVICES

~~a 13d		DED	DOT OF ANT	ALYSIS XX			
Chemlab Ref.# :93.4286-2		TCE-C	OKI OI AM	ALISIS XX		56 33 B S	TREET
Client Sample ID :BTR-LF04-9						ANCHORAGE, AK	99518
	SWU2					TEL: (907) 56	2-2343
Matrix :WATER						FAX: (907) 56	1-5301
2-Nitroaniline							
	0.022	U	mg/L	EPA 8270		08/26 09/ 03	GV
Dimethylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	G V
Acenaphthylene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
2,6-Dinitrotoluene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
3-Nitroaniline	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Acenaphthene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
2,4-Dinitrophenol	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
4-Nitrophenol	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Dibenzofuran	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
2,4-Dinitrotoluene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Diethylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	G V
4-Chlorophenyl-Phenylet	0.022	Ū	mg/L	EPA 8270		08/26 09/03	G V
Fluorene	0.022	Ü	mg/L	EPA 8270		08/26 09/03	G V
4-Nitroaniline	0.022	บ	mg/L	EPA 8270			
4,6-Dinitro-2-Methylphe	0.022	บ	mg/L	EPA 8270		08/26 09/03	G V
n-Nitrosodiphenylamine	0.022	Ü	mg/L	EPA 8270		08/26 09/03	G V
4-Bromophenyl-Phenyletn	0.022	ប	mg/L	EPA 8270		08/26 09/03	GV
Hexachlorobenzene	0.022	Ü	-			08/26 09/03	GV
Pentachlorophenol	0.022	Ü	mg/L	EPA 8270		08/26 09/03	G V
Phenanthrene	0.022	Ü	mg/L	EPA 8270		08/26 09/03	G V
Anthracene	0.022	Ü	mg/L	EPA 8270		08/26 09/03	G V
di-n-Butylphthalate			mg/L	EPA 8270		08/26 09/03	GV
Cluoranthene	0.022	U	mg/L	EPA 8270		08/26 09/03	G V
yrene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
	0.022	U	mg/L	EPA 8270		08/26 0 9/03	G V
Butylbenzylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
3,3-Dichlorobenzidine	0.022	U	mg/L	EPA 8270		08/26 09/03	G V
Benzo(a)Anthracene	0.022	U	mg/L	EPA 8270		08/ 26 0 9/03	G V
Chrysene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
bis(2-Ethylhexyl)Phthal	0.022	U	mg/L	EPA 8270		08/26 09/03	G V
di-n-Octylphthalate	0.022	U	mg/L	EPA 8270		08/26 09/03	G V
Benzo(b)Fluoranthene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Benzo(k)Fluoranthene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Benzo(a)Pyrene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Indeno(1,2,3-cd)Pyrene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Dibenz(a,h)Anthracene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
Benzo(g,h,i)Perylene	0.022	U	mg/L	EPA 8270		08/26 09/03	GV
						00,20 03,03	3.
Total Metals Analysis				_			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010	117 G	08/28 08/30	DLG
Antimony	0.1	Ü	mg/L	EPA 6010		08/28 08/30	DLG
Arsenic	0.1	Ü	mg/L	EPA 6010		08/28 08/30	
Barium	0.05	Ü	mg/L	EPA 6010			DLG
Beryllium	0.05	Ü	mg/L	EPA 6010		08/28 08/30	DLG
Cadmium	0.05	Ü				08/28 08/30	DLG
Calcium	58	Ü	mg/L	EPA 6010		08/28 08/30	DLG
Chromium		* 1	mg/L	EPA 6010		08/28 08/30	DLG
Cobalt	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Copper	0.1	Ü	mg/L	EPA 6010		08/28 08/30	DLG
Iron	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
ead	2.4		mg/L	EPA 6010		08/28 08/30	DLG
cau	0.1	U	mg/L	EPA 6010		08/28 08/30	DLG





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4286-2 ANCHORAGE, AK 99518 Client Sample ID :BTR-LF04-SW02 TEL: (907) 562-2343

lient Sample ID :BTR-LFO atrix :WATER	4-SW02					FAX: (907) 561	
Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium	29 0.15 0.05 0.05 12 0.1 0.5 100 0.005	ט ט ט	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 7841 EPA 6010		08/28 08/30 08/28 08/30 08/28 08/30 08/28 08/30 08/28 08/30 08/28 08/30 08/28 08/30 08/28 08/30 08/28 08/30	DLG DLG DLG DLG DLG DLG DLG DLG DLG
Zinc	0.05	U	mg/L	EPA 6010		08/28 08/30	DLG
Dissolved Metals Analys ICP Screen, ICF				- EPA	n/a		
Aluminum Antimony Arsenic	0.1 0.1 0.1	U U	mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010		08/28 08/30 08/28 08/30 08/28 08/30	DLG DLG DLG
Barium Beryllium Cadmium	0.05 0.05 0.05	U U	mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010		08/28 08/30 08/28 08/30 08/28 08/30	DLG DLG DLG
Calcium Chromium Cobalt	59 0.05 0.1	U	mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010		08/28 08/30 08/28 08/30 08/28 08/30	DLG
Copper Iron Lead	0.05 2.2 0.1	U U	mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010		08/28 08/30 08/28 08/30 08/28 08/30	DLG DLG
Magnesium Manganese Molybdenum	28 0.15 0.05	U	mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010		08/28 08/30 08/28 08/30 08/28 08/30	DLG DLG DLG
Nickel Potassium Selenium	0.05 10 0.1	U	mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010		08/28 08/30 08/28 08/30 08/28 08/30	DLG DLG
Silver Sodium Thallium	0.05 87 0.005	ת ח	mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 7841		08/28 08/30 08/28 08/30 08/28 08/30	DLG DLG KAW
Vanadium Zinc	0.05 0.05	U	mg/L mg/L	EPA 6010 EPA 6010		08/28 08/30 08/28 08/30	DLG DLG
TOC, NonpurgableTOC RangeTOC Concentration	26.3-27-2 26.6		mg/L mg/L	EPA 9060 EPA 9060 EPA 9060	n/a	09/02 09/02	CMR CMR
Residue, Non-Filterable Residue, Filterable (TDS)	22 614		mg/L mg/L	EPA 160.2 EPA 160.1	500	08/24 08/24 08/27	GPP RJK

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than

GT = Greater Than



SGS Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR-LF04-2SW03

:93.4616-14

Matrix

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

WORK Order

:70612 Report Completed

:10/28/93

Ordered By Project Name

:RAY MORRIS

Collected

:09/03/93 @ 14:00 hrs :09/04/93 @ 11:00 hrs

Project#

:DEW LINE :BARTER

Received

Technical Director: STEPHEN C. EDE

PWSID :UA

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		09/08	09/09	DRS
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015M			09/10	WLS
Volatile Organics				FF3. 0240			•	
Benzene	0.0010	11	na /I	EPA 8260				
Bromobenzene	0.0010	U U	mg/L	EPA 8260			09/15	KWH
Bromochloromethane	0.0010	Ü	mg/L	EPA 8260			09/15	KWM
Bromodichloromethane	0.0010	Ü	mg/L	EPA 8260			09/15	KWM
Bromoform	0.0010	Ü	mg/L	EPA 8260			09/15	KWH
Bromomethane	0.0010	Ü	mg/L	EPA 8260			09/15	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260			09/15	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		09/15		KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260			09/15	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		09/15		KWM
Chlorobenzene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
Chloroethane	0.0010	-	mg/L	EPA 8260		09/15		KWM
Chloroform	0.0010	U	mg/L	EPA 8260		09/15		KWM
Chloromethane		Ü	mg/L	EPA 8260		09/15		KWM
2-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
4-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/15		KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWH
1,2-Dibromoethane	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
Dibromomethane	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15		KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15		KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/15		KWM
Dichlorodifluoromethane	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,1-Dichloroethane	0.0010	ប	mg/L	EPA 8260		09/15		KWM
1,2-Dichloroethane	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,1-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		09/15	09/15	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/15		KWM
trans1,2-Dichloroethene	0.0010	ប	mg/L	EPA 8260		09/15		KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15		KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15		KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15		KWM
1,1-Dichloropropene	0.0010 0.0010	Ü	mg/L	EPA 8260		09/15		KWM
Ethylbenzene		Ü	mg/L	EPA 8260		09/15		KWM
2007 200126116	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-14 Client Sample ID :BTR-LF04-2SW03

Matrix · WATED

5633 8 STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

natrix	:WATER						,	701. (501) 51	
Hexachloro	butadiene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
Isopropylb	enzene	0.0010	U	mg/L	EPA	8260		09/15	KWM
p-Isopropy	ltoluene	0.0010	U	mg/L	EPA	8260		09/15	KWM
Methyl ene	Chloride	0.0010	U	mg/L	EPA	8260		09/15	KWM
Napthalene		0.0010	U	mg/L	EPA	8260		09/15	KWH
n-Propylbe	nzene	0.0010	U	mg/L		8260		09/15	KWH
Styrene		0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
1112-Tetra	chloroethane	0.0010	U	mg/L	EPA	8260		09/15	KWM
1122-Tetra	chloroethane	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
Tetrachlor	oethene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
Toluene		0.0010	Ü	mg/L	EPA	8260	09/15	09/15	KWM
1,2,3-Tric	hlorobenzene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
	hlorobenzene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
	hloroethane	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWH
1,1,2-Tric	hloroethane	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
Trichloroe	thene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
	luoromethane	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
	hloropropane	0.0010	U	mg/L		8260	09/15	09/15	KWM
	ethylbenzene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
	ethylbenzene	0.0010	Ü	mg/L		8260		09/15	KWM
Vinyl Chlo		0.0010	U	mg/L		8260		09/15	KWM
p+m-Xylene		0.0010	Ü	mg/L		8260		09/15	KWM
o-Xylene		0.0010	U	mg/L	EPA	8260	09/15	09/15	

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



ICF ID	BTR-LF04-S01	BTR-LF04-S02	DTD 1504 CD01	DTD 1 F04 CD03	DTD 1 F04 20D02	DTD 1 F04 20D04
F&BI Number	326	1334	BTR-LF04-SD01 1336	BTR-LF04-SD02 1338	BTR-LF04-2SD03 1742	BTR-LF04-2SD04 1744
Sample Type	soil	soil	soil	soil	soil	
Date Received	8/23/93	8/31/93		8/31/93		soil
% Dry Weight	6/23/93 72	6/31/93 18	8/31/93		9/3/93	9/3/93
Sequence Date			29	83	16	89
Leaded Gas	#5-08/24/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-09/05/93	#6-09/05/93
JP-4	- 00	. 000	- 170	. 00	- 000	
Jr-4 Lube Oil	< 80	< 280	< 170	< 60	< 320	< 60
	< 140	< 560	< 340	< 120	< 640	< 120
Diesel	<70 5	< 340	< 550	60	520 <310	< 60
Spike Level Unknown Semi-volatile						
Pentacosane	108	103	70	105	100	0.4
Sequence Date	#6-08/23/93	#6-08/31/93	75 #6 00/21/02	105	102	84
PCB 1221	#6-06/23/93 < 0.5		#6-08/31/93	#6-08/31/93		
PCB 1232		< 0.1	< 0.1	< 0.1		
PCB 1016	< 0.5 < 0.5	< 0.1	< 0.1	< 0.1		
PCB 1242		< 0.1	< 0.1	< 0.1		
	< 0.5	< 0.1	< 0.1	< 0.1		
PCB 1248	< 0.5	< 0.1	< 0.1	< 0.1		
PCB 1254	< 0.7	< 0.1	< 0.1	< 0.1		
PCB 1260 Spike Level	< 0.5	< 0.1	< 0.1	< 0.1		
Dibutyl Chlorendate	120	00	00	00		
Sequence Date		99	90	90		
•	#6-08/23/93 < 0.02					
alpha-BHC beta-BHC	< 0.02					
gamma-BHC	< 0.02					
delta-BHC	< 0.02					
Heptachlor	< 0.02					
Aldrin	< 0.02 < 0.02					
Heptachlor Epoxide	< 0.02					
Endosulfan I	< 0.02					
DDE	< 0.02					
Dieldrin	< 0.02					
Endrin	< 0.02					
Endosulfan II	< 0.02					
DDD	< 0.02					
Endrin Aldehyde	< 0.02					
DDT	< 0.02					
Endosulfan Sulfate	< 0.02					
Endrin Ketone	< 0.02					
Methoxy Chlor	< 0.2					
Chlordane	<1					
Dibutyl Chlorendate	120					
Spike Level						
Vol Sequence	#3&4-08/24/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-09/06/93	#1&2-09/06/93
CC14	< 0.03 ₮	< 0.02-20.1	J <0.02<0.01	6J SO.02 ZO.03	³ <0.5 丁	<0.1丁
TCA	<0.03丁	<8.82 LO	J <0.0220.0	567 <0.02 LO.0	3 < 0.5 T	< 0.1 3
Benzene	< 0.03	< 0.1	< 0.06	< 0.03	< 0.1	< 0.02
TCE	<0.03T	< 0.82 -20.	1J <0.02 co.	0.02°×0.0	3 < 0.5 T	< 0.1 T
Toluene	< 0.03	< 0.1	< 0.06	< 0.03	< 0.1	< 0.02
PCE	<0.03丁	< 0.82 Lo.1	J <0.02-40.0	6J <0.02 CO.0		<0.1 J
Ethylbenzene	< 0.03	< 0.1	< 0.06	< 0.03	< 0.1	< 0.02
Xylenes	< 0.06	< 0.2	< 0.1	< 0.05	0.2 🛨	< 0.04
Gasoline	<25	< 10 T	<61	<25	<5 T	8 diesel J
Spike level					•	-
BFB	103	101	96	105	74	102

					26,042
ICF ID	BTR-LF04-SW01	BTR-LF04-SW01	BTR-LF04-SW02	BTR-LF04-SW02	25心6ろ BTR-LF04 5W03
F&BI Number	1324	1326	1328	1330	1747
Sample Type	water	water	water	water	water
Date Received	8/31/93	8/30/93	8/31/93	8/30/93	9/3/93
% Dry Weight					
Sequence Date	#5-08/31/93		#5-08/31/93		#5-09/06/93
Leaded Gas	,, 0 00,01,00		,, 0 00,0 .,00		,, (
JP-4	< 200		< 200		< 1000
Lube Oil	< 2000		< 2000		< 2000
Diesel	< 280 °< ∞	-	<200 <200 <	00	< 1000
Spike Level	\$200 ~ OO		>200 -4		< 1000
Unknown Semi-volatile					
Pentacosane	103		96		130
Sequence Date	#5-08/31/93		#5-08/31/93		130
•	#5-06/31/93 <2		#5-06/31/93 <2		
PCB 1221					
PCB 1232	<2		<2		
PCB 1016	<2		<2		
PCB 1242	<2		<2		
PCB 1248	<2		<2		
PCB 1254	< 2		< 2		
PCB 1260	<2		< 2		
Spike Level					
Dibutyl Chlorendate	103		96		
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence		#3&4-08/31/93		#3&4-08/31/93	
CCI4		<15		<17	
TCA		<15		<17	
Benzene		<1		<1	
TCE		<1 T		36 J	
Toluene		<1		<1	
PCE		<15		<15	
Ethylbenzene		<1		<1	
Xylenes		<2		<2	
Gasoline		< 100 T		<100 J	
Spike level		~ 100 1		~ 100 4	
Spike level BFB		77		105	
ם זע		"		100	

	25wq	3	
ICF ID	BRT-LF04-8W03		BTR-LF04-2SW02
F&BI Number	1748	1669	1670
Sample Type	water	water	water
Date Received	9/3/93	9/2/93	9/2/93
% Dry Weight	0,0,00	3/2/00	3/2/33
Sequence Date		#5-09/06/93	#5-09/06/93
Leaded Gas		#3-03/00/33	#9-09 00 93
JP-4		- 1000	. 1000
Lube Oil		< 1000	< 1000
		< 2000	< 2000
Diesel		< 1000	< 1000
Spike Level			
Unknown Semi-volatile			
Pentacosane		120	130
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan l			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
·			
Spike Level	#199 00107109		
Vol Sequence	#1&2-09/07/93		
CCI4	<5 T		
TCA	<5 T		
Benzene	<1		
TCE	87		
Toluene	<1		
PCE	<5\T		
Ethylbenzene	<1		
Xylenes	<2		
Gasoline	<50丁		
Spike level			
BFB	96		

•	ANALYTICAL DATA SHEETS FOR THE CONTAMINATED DITCH (SD08)	
•		



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

emlab Ref.# :93.4199-9 Client Sample ID :BTR SD08 S01

Matrix :SOIL

5633 B STREE ANCHORAGE, AK 9951 TEL (907) 562-234 FAX (907) 561-530

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

PWSID

:DEW LINE :BARTER

:RAY MORRIS

:UA

:69775 RUSH Order

Report Completed :08/24/93

Collected :08/17/93 @ 13:55 hi :08/19/93 @ 18:45 hi Received

Technical Director: STEPHEN C. EDE Released By : XXXII

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids Hydrocarbons EPH	97.3 691	D	% mg/Kg	SM17 2540G 3510/3550/8100M		08/20	08/21	DR
VPH & BTEX Hydrocarbons VPH	134		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	KWi
Benzene Toluene Ethylbenzene " p&m Xylene -Xylene	0.100 0.885 1.59 2.96 2.59	Ū	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20	08/21	KWI KWI KWI
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethane	0.075 0.075 0.075 0.075 0.075 0.075 0.075 0.075 0.075 0.075	ם ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8010		08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	SGM SGM SGM SGM SGM SGM SGM SGM SGM SGM
1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane Vinyl Chloride Chloroethane ,4 Dichlorobenzene	0.075 0.075 0.075 0.075 0.075 0.075 0.075 0.075 0.075	บ บ บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	SGM SGM SGM SGM SGM SGM SGM SGM SGM SGM



Matrix

Chemlab Ref.#

COMMERCIAL TESTING & ENGINEERING CO.

REPORT OF ANALYSIS &

:93.4199-9 Client Sample ID :BTR SD08 S01

:SOIL

5633 B STREET ANCHORAGE, AK 99516

TEL: (907) 562-2343 FAX: (907) 561-5301

2-Chloroethylvinylether
1,3-Dichiorobenzene
1,2-Dichlorobenzene

0 076		
0.075	U	mg/Kg
0.075	Ū	mg/Kg
0.075	U	ma/ka

EPA	8010
EPA	8010
EPA	8010

	08/21	SG
08/20	08/21	SG
08/20	08/21	SG

See Special Instructions Above See Sample Remarks Above Undetected, Reported value is the practical quantification limit.

UA = Unavailable NA = Not AnalyzedLT = Less Than GT = Greater Than





REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

mlab Ref.#

:93.4203-7

Client Sample ID :BTR SD08 S02

Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By

:RAY MORRIS

Project Name Project#

:DEW LINE :BARTER

PWSID

:UA

RUSH Order

:69800

Report Completed :08/25/93

:08/17/93

@ 14:45 hrs

Collected Received

:08/19/93 @ 18:45 hrs

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	99.5 2260	D	% mg/Kg	SM17 2540G 3510/3550/8100M		08/21	08/21 08/23	MY JBH
VPH & BTEX Hydrocarbons VPH	133	D	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WLS
Benzene Toluene Ethylbenzene P&m Xylene Xylene	0.020 0.021 0.113 0.571 0.683	U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23	JLB JLB JLB JLB JLB
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1,2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethane 1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane Winyl Chloride Chloroethane 4 Dichlorobenzene	0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020	ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23	



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

:93.4203-7 Chemlab Ref.# Client Sample ID :BTR SD08 S02

:SOIL Matrix

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

2-Chloroethylvinylether	0.020	U	mg/Kg	EPA 8010	•	JLE
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	•	JLB
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8010	08/21 08/23	JLE

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than

GT = Greater Than





REPORT of ANALYSIS

mlab Ref.# :93.4199-10 ent Sample ID :BTR SD08 S03

:UA

Matrix :SOIL

5633 B STREE ANCHORAGE, AK 995 TEL (907) 562-23 FAX (907) 561-530

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

PWSID

:RAY MORRIS :DEW LINE :BARTER

RUSH Order Report Completed

Collected Received

:08/17/93 0 14:59 h :08/19/93 0 18:45 h . EDE

:69775

Technical Director:STEPHEN C Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Parameter	Results	QC Qua	l Units	Method	Allowable Limits			In.
Hydrocarbons EPH	94.0 7.03 7.09		% mg∕Kg	SM17 2540G 3510/3550/8100M		00/20	1 00 (0:	
VPH & BTEX						00/2(08/21	Dŧ
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/22	16
Benzene	0.020	U	-ייז/ מתו			JU/ 46	. 00/22	Kī.
Toluene	0.024	J	mg/Kg Mg/Kg	EPA 8020		08/20	08/22	KW
Ethylbenzene	0.027		mg∕kg mg/Kg	EPA 8020		08/20	08/22	KW
For vareue	0.052		mg∕kg	EPA 8020		08/20	08/22	KW .
ylene	0.020		mg/kg	EPA 8020		08/20	08/22	KW
Halogenated # * * * * *			3/ I/G	EPA 8020		08/20	08/22	KW
Halogenated Volatile Or Methylene Chloride	0.020	U	m ~ **	EPA 8010				•40
1,1 Dichloroethylene		Ü	mg/Kg	EPA 8010		08/20	08/21	SG
1,1 Dichloroethane		U	ng/Kg	EPA 8010		08/20		SG:
Chioroform		U	ng/Kg ng/Kg	EPA 8010		08/20	08/21	SG!
Carbontetrachloride		Ü	mg∕kg mg/Kg	EPA 8010		08/20	08/21	SGI
1, 2 Dichloropropane		Ü	mg/kg mg/Kg	EPA 8010		08/20	08/21	SGI
Tr TCDTOLOGETHAI ene	0.020	Ü	mg/kg mg/Kg	EPA 8010		08/20	08/21	SGI
1,1,2 Trichloroethane	0.020	Ü	mg/Kg	EPA 8010		08/20	08/21	SGI
Dibromochloromethane Tetrachloroethylese	0.020		ng/Kg	EPA 8010		08/20	08/21	SGI
Tetrachloroethylene Chlorobenzene		U	mg/Kg	EPA 8010 EPA 8010		08/20	08/21	SGI
Trichlorofluoromethane		U	mg/Kg	EPA 8010 EPA 8010		08/20	08/21	SGI
Trans12Dichloroethylene		U	mg/Kg	EPA 8010		08/20 (SGI
1,4 DICUTOLOGIPADE		U	mg/Kg	EPA 8010		08/20 (SGI
1,1,1 Trichoroethane		U .	mg/Kg	EPA 8010		08/20 0		SG
Bromodichloromethane	A	U	mg/Kg	EPA 8010		08/20 0		SGI
ransi, 3Dichloropropos	0.020 ti	'	mg/Kg	EPA 8010		08/20 0		SG?
C13-1, J-IJI Ch I Oropropos	0.020 ປ		mg/Kg	EPA 8010		08/20 0	10/21 18/21	SGI
Drougt OLW	0.020 ບ 0.020 ບ		mg/Kg	EPA 8010		08/20 0 08/20 0		SGI
1122-Tetrachloroethana		•	mg/Kg	EPA 8010		08/20 0		SGN
critoromethane	ປ.020 ປ ປ.020 ປ	•	mg/Kg	EPA 8010		08/20 0		SGI
Bromoethane	0.020 ປ	-	mg/Kg	EPA 8010		08/20 0		SGI SGI
Vinyl Chloride	0.020 g		Mg/Kg Mg/Ka	EPA 8010		08/20 08		SG1
Chloroethane	0.020 U	••	Mg/Kg Mg/Ka	EPA 8010		08/20 08		SGI
1. Dichlorobenzene	0.020 U	•••	ng/Kg ng/Kg	EPA 8010		08/20 08		SG1
		ti	a\ ν.λ	EPA 8010		08/20 08		SGI
-						0		



REPORT of ANALYSISSIC

Chemlab Ref.# :93.4199-10 Client Sample ID :BTR SD08 S03

Matrix :SOIL 5633 8 STREE ANCHORAGE, AK 9951 TEL: (907) 562-234. FAX: (907) 561-530

2-Chloroethylvinylether 0.020 U mg/Kg EPA 8010 1,3-Dichlorobenzene 08/20 08/21 0.020 SC U mg/Kg EPA 8010 1,2-Dichlorobenzene 08/20 08/21 S 0.020 nag/Kg EPA 8010 08/20 08/21 SC

See Special Instructions Above

See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit. ' = Secondary dilution.

GT = Greater Than

UA = Unavailable NA = Not AnalyzedLT = Less Than



REPORT of ANALYSIS

hemlab Ref.# :93.4199-12 Client Sample ID :BTR SD08 S04

Matrix :SOIL

5633 8 STAT ANCHORAGE AK 99 1907) 562-2

11 1907) 561 5

@ 15:10

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

: RAY MORRIS :DEW LINE

Project# :BARTER PWSID :UA

RUSH Order **:697**75

Report Completed :08/24/93

Collected :08/17/93 Received

:08/19/93 @ 18:45 | Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

	Parameter Percent Solids			l Units	Method	Allowable Limits	Ext. Date	Anal Date	In
	Hydrocarbons EPH	92.3 234		% mg/Kg	SM17 2540G 3510/3550/8100M		08/20	08/21	
	VPH & BTEX						00, 20	00/21	D:
	Hydrocarbons VPH	163		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	15
	Benzene	0.100	U	AI-				00/21	Kī
	Toluene	0.874	U	ng/Kg	EPA 8020		08/20	08/21	K T
	Ethylbenzene	3.01		ng/Kg ng/Kg	EPA 8020		08/20	08/21	KW
_	p&m Xylene	8.85		mg/Kg	EPA 8020		08/20	08/21	KW
	o-Xylene	3.68		mg/Kg	EPA 8020		08/20	08/21	KW
	Halogonatal			97 1 /9	EPA 8020		08/20	08/21	KW
	Halogenated Volatile Or Methylene Chloride				EPA 8010				
	1.1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010				
	1,1 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20		SG:
{	Chloroform	0.020	U	mg/Kg	EPA 8010		08/20	08/21	SG.
(Carbontetrachloride	0.020	Ü	mg/Kg	EPA 8010		08/20	08/21	S G :
:	1, 2 Dichloropropane	0.020	Ü	mg/Kg	EPA 8010		08/20	08/21	S G i
	richloroethylene	0.020	U	mg/Kg	EPA 8010		08/20		SGi
-	1,1,2 Trichloroethane	0.020	Ü	mg/Kg	EPA 8010		0 8/20 0 8/20	00/21	SGI
L	Dipromochloromethane	0.020 0.020	U	mg/Kg	EPA 8010		08/20	00/21	S G1 S G1
- 1	etrachloroethylene	0.020	U U	mg/Kg	EPA 8010		08/20		SGP
Ĺ	.niorobenzene	0.020	U U	mg/Kg	EPA 8010		08/20		SGI:
1	richlorofluoromethane	0.020	U	ng/Kg	EPA 8010		08/20	08/21	SGY.
1	ransizDichloroethylene	0.020	IJ	mg/Kg	EPA 8010		08/20	08/21	SGM
1	'4 Dichioroethane	0.020	Ü	mg/Kg mg/Kg	EPA 8010		08/20		SGM
T	,1,1 Trichoroethane	0.020	Ü	mg/Kg	EPA 8010		08/20 (SGM
T	romodichloromethane	0.020	Ü	mg/Kg	EPA 8010		08/20 (SGM
	rans1,3Dichloropropene	0.020	Ū	mg/Kg	EPA 8010		08/20 (SGM
a B	is-1,3-Dichloropropene romoform	0.020	Ū	mg/Kg	EPA 8010 EPA 8010		08/20 (SGM
1 1	122-Tetrachi	0.020	U	mg/Kg	EPA 8010		08/20 0		SGM
i c	122-Tetrachloroethane hloromethane	0.020	U	mg/Kg	EPA 8010		08/20 0		SGM
В	romoethane	0.020	U	mg/Kg	EFA 8010		08/20 0		SGM
v	inyl Chloride			mg/Kg	EPA 8010		08/20 0		SGM
CI	hloroethane	0.020	U	mg/Kg	EPA 8010		08/20 0		SGM
. 1	,4 Dichlorobenzene	0.020	U	mg/Kg	EPA 8010		08/20 0		SGM
	- CODCITZENE	0.020	U	mg/Kg	EPA 8010		08/20 0		SGM
	ļ.				` .	ι	8/20 0	0/21	SGM



REPORT of ANALYSIS

Chemlab Ref.# :93.4199-12 Client Sample ID :BTR SD08 S04

Matrix :SOIL 5633 B STRE ANCHORAGE, AK 995

TEL. (907) 562-20 FAX: (907) 561-53

a					FAX: (907) 561-53
2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020 0.020 0.020	U U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010	08/20 08/21 08/20 08/21 08/20 08/21

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. , D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



REPORT of ANALYSIS

Chemiab Ref.# :93.4199-11 Client Sample ID :BTR SD08 S05

:UA

Matrix

:SOIL

5633 B ST& ANCHORAGE AK 9 'Et (907) 562

· 4 € (907) 561.

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :DEW LINE

:RAY HORRIS

Project# PWSID

:BARTER

RUSH Order

:69775

Report Completed :08/24/93 Collected

:08/17/93 @ 16:14

Received :08/19/93 @ 18:45
Technical Director:STEPHEN C. EDE
Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. 213 PPM OF EPH PATTERN IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

- -	Parameter	Results	Qual QC	Units	Method	Allowable Limits	Ext. Date	A nal Date	Ιι
	Percent Solids Hydrocarbons EPH	90.0		 }	SM17 2540G				
		742	D	mg/Kg	3510/3550/8100M		08/20	08/21	
	VPH & BTEX						00/20	06/21	[
	Hydrocarbons VPH	9.84		mg/K g	EPA 8015M/8020 EPA 5030/8015m				
	Benzene	~ ~~		_	7 × 2020/0012m		08/20	08/21	E
	Toluene	0.100 0.100		mg/Kg	EPA 8020		08/20	08/21	К
_	Ethylbenzene	0.279	U	mg/Kg	EPA 8020		08/20	08/21	K
	p&m Xylene o-Xylene	1.01		mg/K g mg/K g	EPA 8020		08/20	08/21	ĸ
	0-xylene	0.342		mg/Kg	EPA 8020 EPA 8020		08/20	08/21	K
	Halogenated Volatile Or			-	M A 0020		08/20	08/21	K
	netnylene Chloride	0.020	**		EPA 8010				
	1,1 Dichloroethylene	0.020	U U	mg/Kg	EPA 8010		08/20	08/22	SC
	1,1 Dichloroethane	0.020		mg/Kg mg/Kg	EPA 8010		08/20	08/22	SC
	Chloroform Carbontetrachloride	0.020		mg/Kg	EPA 8010 EPA 8010		08/20	08/22	SC
	1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/20		SC
,	richloroethylene	0.020		mg/Kg	EPA 8010		08/20 08/20		SC SC
	1,1,2 Trichloroethane	0.020 0.020		ng/Kg	EPA 8010		08/20	08/22	SG
•	Dibromochloromethane	0.020	-	mg/Kg mg/Kg	EPA 8010		08/20	08/22	SG
	Tetrachloroethylene Chlorobenzene	0.020		mg/Kg	EPA 8010 EPA 8010		08/20		SG
	Trichlorofluoromethane	0.020	U I	mg/Kg	EPA 8010		08/20		SG
-	Transl2Dichloroethylene	0.020 0.020		mg/Kg	EPA 8010		08/20 08/20	18/22	S G :
	1,2 Dichloroethane	0.020		ng/Kg	EPA 8010		08/20		SG:
	1,1,1 Trichoroethane	0.020		ng/Kg ng/Kg	EPA 8010		08/20 (08/22	S G i
	Bromodichloromethane	0.020		ng/Kg	EPA 8010 EPA 8010		08/20 (SGI
	Trans1,3Dichloropropene cis-1,3-Dichloropropene	0.020	U 1	ng/Kg	EPA 8010	:	08/20 (08/20 (8/22	SGI
	promotorm	0.020 0.020		ng/Kg	EPA 8010		08/20 0		SG1 SG1
	1122-Tetrachloroethane	0.020	. "	ng/Kg ng/Kg	EPA 8010		08/20 0		SGŁ
	Chloromethane Bromoethane	0.020		1 9/K g	EPA 8010	(08/20 0	8/22	SGY.
	Vinyl Chloride			ig/Kg	EPA 8010 EPA 8010		8/20 0		SGM
	Chloroethane		U m	g/Kg	EPA 8010)8/20 0		SGM
		0.020	U m	i g/K g	EPA 8010		18/20 0 18/20 0		SGM SGM
T					-	•	J/20 0	U, LL	2011



ENVIRONMENTAL LABORATORY SERVICES

Chemiab Ref.# :93.4199-11 Client Sample ID :BTR SD08 S05 Matrix :SOIL		REPU	≺T of AN	NALYSIS X 2	5633 B STF ANCHORAGE, AK 9 TEL: (907) 562- FAX: (907) 561-
<pre>1.4 Dichlorobenzene 2-Chloroethylvinylether 1.3-Dichlorobenzene 1.2-Dichlorobenzene</pre>	0.020 0.020 0.020 0.020	Ü	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/20 08/22 08/20 08/22 08/20 08/22 08/20 08/22

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

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NA = Not Analyzed

LT = Less Than

GT = Greater Than





hemlab Ref.#

:93.4216-2

Client Sample ID :BTR SD08 S06

Matrix

:SOIL

REPORT of ANALYSIS

SATS B CESS ANCHORAGE, AK 995 TEL (907) 562-20 FAX (907) 561-53

Client Name

: ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

RUSH Order

:69828

Collected

Report Completed :08/30/93

:08/18/93 @ 10:58 } :08/20/93 @ 11:30 }

Received

Technical Director: STEPHEN/C. EDE Released By :

bres

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL. EPH PATTERN

Parameter	R es ults	Oner OC	Units	Method	Allowable Limits	Ext. Date	Anal	_
Percent Solids Hydrocarbons EPH	33.7 743	D	₹ mg/Kg	SM17 2540G 3510/3550/8100M			08/22	In
YPH & BTEX Hydrocarbons VPH	23.8		™g /Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	л
Benzene Toluene Ethylbenzene &m Xylene o-Xylene	0.080 0.532 0.080 0.080 0.080	U U U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21 08/21 08/21	08/25 08/25 08/25 08/25	WE WE WE WE

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

UA = Unavailable NA = Not Analyzed

LT = Less Than

GT = Greater Than





REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

Chemiab Ref.#

:93.4216-1

Client Sample ID :BTR SD08 S07

Matrix

:SOIL

5633 8 STRE ANCHORAGE. AK 99

TEL (907) 562-2: FAX (907) 561-5

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS

Project#

:DEW LINE :BARTER

PWSID

:UA

RUSH Order

Collected

:69828

Report Completed :08/30/93

:08/18/93 @ 11:30 I

Received

:08/20/93 @ 11:30 i

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. 18.9 MG/KG

OF EPH PATTERN IS NOT CONSISTENT WITH HIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual Units	Method	Allowable Limits	Ext. Date	Anal Date	In
Percent Solids Hydrocarbons EPH	93.8 22.4	₹ mg/ Kg	SM17 2540G 3510/3550/8100M			08/22 08/24	
VPH & BTEX Hydrocarbons VPH	0.400	U mg∕K g	EPA 8015H/8020 EPA 5030/8015m		08/21		₩.
Benzene Toluene Ethylbenzene P&m Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020	U mg/Kg U mg/Kg U mg/Kg U mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21 08/21 08/21	08/25 08/25 08/25	WE WE

See Special Instructions Above

** See Sample Remarks Above

I to document for an account.

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than





REPORT of ANALYSIS

Chemiab Ref.# :93.4199-8 Client Sample ID :BTR SD08 S10

Matrix

PWSID

:SOIL

5633 B STRE ANCHORAGE, AK 99 'EL (907) 562-2 1 AX (907) 561 5

Client Name Ordered By

: ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS :DEW LINE :BARTER :UA

RUSH Order

:69775

Report Completed :08/24/93 Collected

:08/17/93 @ 14:00 / :08/19/93 @ 18:45

Received

Technical Director:STEPHEN C. EDE Released By : C. Ell

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

	Parameter	R es ults	Qua)	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
	Percent Solids	94.4		~ -					
	Hydrocarbons EPH	535	D	mg/Kg	SM17 2540G 3510/3550/8100M		08/20	08/21	D
	VPH & BTEX						00,20	00/21	U
	Hydrocarbons VPH	, ,,			EPA 8015M/8020				
	,	171		mg/Kg	EPA 5030/8015m		08/20	08/21	K
	Benzene	0 200					00,20	00/21	K)
	Toluene	0.200 0.182	ជ្	mg/Kg	EPA 8020		08/20	08/21	KT
	Ethylbenzene		J	mg/Kg	EPA 8020			08/21	KI.
	p&m Xylene	2.14 4.71		mg/Kg	EPA 8020			08/21	KF:
•	o-Xylene	2.15		mg/Kg	EPA 8020			08/21	KF
	•	2.15		mg/Kg	EPA 8020			08/21	KW
	Halogenated Volatile Or						,	00,21	V.H
	Methylene Chloride	0.100	* *		EPA 8010				
	1,1 Dichloroethylene	0.100	U U	mg/Kg	EPA 8010		08/20	08/21	SG
	1,1 Dichloroethane	0.100	Ü	mg/Kg	EPA 8010		08/20		SG
	Chloroform	0.100	Ü	mg/Kg	EPA 8010		08/20		SG
	Carbontetrachloride	0.100	IJ	mg/Kg	EPA 8010		08/20		SG
	1, 2 Dichloropropane	0.100	Ü	mg/Kg	EPA 8010		08/20		SG:
	Trichloroethylene	0.100	Ü	mg/Kg	EPA 8010		08/20		SG:
	1,1,2 Trichloroethane	0.100	Ü	mg/Kg	EPA 8010		08/20		SGi
	Dibromochloromethane	0.100	Ü	mg/Kg	EPA 8010		08/20		SGI
	Tetrachloroethylene	0.100	U	mg/Kg	EPA 8010		08/20		S G 1
	Chlorobenzene	0.100	U	mg/Kg	EPA 8010		08/20		SGI
	Trichlorofluoromethane	0.100	Ü	mg/Kg	EPA 8010		08/20		SGI
	Trans12Dichloroethylene	0.100	Ü	mg/Kg	EPA 8010		08/20		SGI
	1,2 Dichloroethane	0.100	Ü	mg/Kg	EPA 8010		08/20		SGI
	1,1,1 Trichoroethane	0.100	Ü	mg/Kg mg/Kg	EPA 8010		08/20	08/21	SGI
	Bromodichloromethane	0.100	Ü	mg/Kg	EPA 8010		08/20		SGI
	Trans1,3Dichloropropene	0.100	Ü	mg/Kg	EPA 8010		08/20		SGI
	Cls-1,3-Dichloropropene	0.100	_	mg/Kg	EPA 8010		08/20		SGI
	BLOWOLOLW	0.100		ng/Kg	EPA 8010		08/20		SGP
	1122-Tetrachloroethane	0.100		mg/Kg	EPA 8010		08/20		SGI
	Chloromethane	0.100		mg/Kg	EPA 8010		08/20		SGI
	Bromoethane	0.100		mg/Kg	EPA 8010 EPA 8010		08/20		SGI
	Vinyl Chloride	0.100		mg/Kg	EPA 8010		08/20		SGI
_	Chloroethane	0.100		mg/Kg	EPA 8010		08/20 (SGI
	,4 Dichlorobenzene	0.100		mg/Kg	EPA 8010		08/20 (SGI
					FLM OUTO		08/20 ()8/21	SGI



REPORT OF ANALYSIS SUCC

Chemlab Ref.# Client Sample ID :BTR SD08 S10

:93.4199-8

Matrix

:SOIL

5633 B STRE ANCHORAGE, AK 99: TEL (907) 562-2: FAX: (907) 561-50

2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.100 0.100 0.100	U U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010	08/20 08/21 08/20 08/21 08/20 08/21
---	-------------------------	--------	-------------------------	----------------------------------	---

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. ' D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-8 Client Sample ID :BTR SD08 SD01

Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

RUSH Order

:69762

Report Completed :08/23/93

:08/16/93

Collected Received

:08/19/93 @ 18:45 hrs

@ 15:36 hrs

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual Unit	s Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	8 7. 3 4.00	U mg/k	SM17 2540G g 3510/3550/8100M		08/20	08/20 08/21	MDU JEH
VPH & BTEX Hydrocarbons VPH	2.97	mg/K	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzene Xylene -Xylene	0.020 0.020 0.020 0.020 0.020	U mg/k U mg/k U mg/k U mg/k	g EPA 8020 g EPA 8020 g EPA 8020		08/20 08/20	08/21 08/21 08/21 08/21 08/21	Wils Wils Wils Wils

See Special Instructions Above

See Sample Remarks Above

Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Societé Génerale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-3 Client Sample ID :BTR SD08 SD01

Matrix

:SOIL

WORK Order :69710

Report Completed :09/30/93

Collected :08/16/93 @ 15:36 hrs. Received :08/19/93 @ 10:50 hrs.

5633 B STREE

TEL (907) 562-2343

FAX (907) 561-5301

ANCHORAGE, AK 99518

Technical Director: STEPHEN C. EDE

Released By :

Client Name Ordered By Project Name

:ICF KAISER ENGINEERING

:RAY MORRIS :DEW LINE :BARTER

Project# PWSID

:UA

Sample Remarks: SAMPLE COLLECTED BY: J.M., PETER J.M.G. 8270 EXTRACT LOST DURING

EXTRACTION.

 Parameter	R esu lts	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260			08/28	KWM
Bromochloromethane	0.020	Ü	mg/Kg	EPA 8260			08/28	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260			08/28	KWM
Bromoform	0.020	U	mg/Kg	EPA 8260			08/28	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260			08/28	KWM
n-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260			08/28	KWM
sec-Butylbenzene	0.020	ប	mg/Kg	EPA 8260			08/28	
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260			08/28	
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260			08/28	KWH
Chlorobenzene	0.020	U	mg/Kg	EPA 8260			08/28	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260			08/28	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260			08/28	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1.2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloroethane	0.020		mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloroethene	0.020		mg/Kg	EPA 8260		08/20	08/28	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/20	08/28	KWM
1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		08/20	08/28	KWM
2,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/20	08/28	KWM
1,1-Dichloropropene	0.020		mg/Kg	EPA 8260		08/20		KWM
Ethylbenzene	0.020		mg/Kg	EPA 8260		08/20		KWM
Hexachlorobutadiene	0.020		mg/Kg	EPA 8260		08/20		KWM
Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	K



3 % 1E 30a		שבים	TEM OF AL	INTUCTO	
chemlab Ref.# :93.4178-3		REF	ORT of AN	AALISIS	5633 B STREET
Client Sample ID :BTR SD08 SD0	1				ANCHORAGE, AK 99518 TEL: (907) 562-2343
Matrix :SOIL	•				FAX: (907) 561-5301
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWI
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWI
Napthalene	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWI
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KW
Styrene	0.020	ប	mg/Kg	EPA 8260	08/20 08/28 KWI
1112-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWI
1122-Tetrachloroethane	0.020	Ü.	3	EPA 8260	08/20 08/28 KWI
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWI
Toluene	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWI
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWI
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWN 08/20 08/28 KWN
1,1,2-Trichloroethane	0.020	บ	mg/Kg mg/Kg	EPA 8260 EPA 8260	08/20 08/28 KWF 08/20 08/28 KWF
Trichloroethene	0.020	Ü	mg/Kg	EPA 8260	08/20 08/28 KWM
Trichlorofluoromethane	0.020	บ	mg/Kg	EPA 8260	08/20 08/28 KWr
1,2,3-Trichloropropane	0.020	บั	mg/Kg	EPA 8260	08/20 08/28 KWh
1,2,4-Trimethylbenzene	0.020	Ū	mg/Kg	EPA 8260	08/20 08/28 KWM
1,3,5-Trimethylbenzene	0.020	Ū	mg/Kg	EPA 8260	08/20 08/28 KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWM
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/20 08/28 KWM
Comple Propagation				EDN 2050 Discost	
Sample Preparation Total Metals Analysis				EPA 3050 Digest	
ICP Screen, ICF				- yual EPA n/a	com
Aluminum	2800	บ	mg/Kg	EPA 6010	08/24 08/25 DFL
Antimony	54	บ	mg/Kg	EPA 6010	08/24 08/25 DFL
Arsenic	5.4	Ü	mg/Kg	EPA 6010	08/24 08/25 DFL
Barium	27	_	mg/Kg	EPA 6010	08/24 08/25 DFL
Beryllium	2.7	U	mg/Kg	EPA 6010	08/24 08/25 DFL
Cadmium	2.7	U	mg/Kg	EPA 6010	08/24 08/25 DFL
Calcium	12300		mg/Kg	EPA 6010	08/24 08/25 DFL
Chromium	4.4		mg/Kg	EPA 6010	08/24 08/25 DFL
Cobalt	5.4	U	mg/Kg	EPA 6010	08/24 08/25 DFL
Copper	4.7		mg/Kg	EPA 6010	08/24 08/25 DFL
Iron	9800	**	mg/Kg	EPA 6010	08/24 08/25 DFL
Lead Magnesium	5.4 2600	U	mg/Kg	EPA 6010	08/24 08/25 DFL 1 08/24 08/25 DFL
Manganese	98		mg/Kg mg/Kg	EPA 6010 J EPA 6010 J	I 08/24 08/25 DFL I 08/24 08/25 DFL
Molybdenum	5.4	ប	mg/Kg		FM 844 08/24 08/25 DFL
Nickel	7.6	J	mg/Kg	EPA 6010	08/24 08/25 DFL
Potassium	440		mg/Kg	EPA 6010	08/24 08/25 DFL
Selenium	5.4	ប	mg/Kg	EPA 6010	08/24 08/25 DFL
Silver	2.7	Ū	mg/Kg	EPA 6010	08/24 08/25 DFL
Sodium	80	-	mg/Kg	EPA 6010	08/24 08/27 DFL
Thallium	0.28	U	mg/Kg	EPA 7841 UJ E	.1 08/24 08/26 KAW
Vanadium	7.8		mg/Kg	EPA 6010	08/24 08/25 DFL
Zinc	20		mg/Kg	EPA 6010 J	.1 08/24 08/25 DFL
TOC, Soil	2780		T-ID-ID	PSEP Ref Lab	:BFM 11.8.94
100, 3011	2700		bbw	ract ren ren	

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SSS Member of the SGS Group (Sociéte Générale de Surveillance)



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

Chemiab Ref.#

:93.4198-9

Client Sample ID :BTR SD08 SD02

Matrix

PWSID

:SOIL

5633 8 STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS

Project Name Project#

:DEW LINE :BARTER

:UA

RUSH Order Report Completed Collected

:69762

:08/23/93 :08/16/93

Received

@ 15:29 hrs :08/19/93 @ 18:45 hr:

Technical Director: STEPHEN C. EDE Released By : Staten C. Ele

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	Qual QC	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	8 3. 6 4.00	U	₹ mg/Kg	SM17 2540G 3510/3550/8100M		08/20	08/20 08/21	MDU JEH
VPH & BTEX Hydrocarbons VPH	0.400	Ü	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzene pan Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020		ng/Kg ng/Kg ng/Kg ng/Kg ng/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21	WLS WLS WLS S S

See Special Instructions Above

See Sample Remarks Above

U = Undetected. Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Memiab Ref.# :93.4198-10 Client Sample ID :BTR SD08 SD03

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

PWSID

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

:RAY MORRIS :DEW LINE :BARTER :UA

RUSH Order

Report Completed :08/23/93

:69762

:08/16/93 @ 16:42 hrs

Collected Received

:08/19/93

8 18:45 hrs

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	R es ults	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	8 0. 3 4.00	U	⅓ mg/Kg	SM17 2540G 3510/3550/8100M		08/20	08/20 08/21	MDU JBH
VPH & BTEX Hydrocarbons VPH	0.400	U	™g/K g	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzene p&m Xylene -Xylene	0.020 0.020 0.020 0.020 0.020	บ บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21	WLS WLS WLS

See Special Instructions Above

See Sample Remarks Above

Undetected, Reported value is the practical quantification limit.

Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Societé Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4198-11 Client Sample ID :BTR SD08 SD04

Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS : DEW LINE

Project# PWSID

:BARTER

: UA

RUSH Order

:69762

Collected

Report Completed :08/23/93 :08/16/93

@ 16:52 hrs

Received

:08/19/93 @ 18:45 hrs

Released By : Stephen C. EDE

Sample Remarks: SAMPLE COLLECTED BY: UA. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE

DISTILLATE FUEL.

Parameter	Results (QC Qual Units	Method	Allowable Limits	Ext. Date	A nal Date	Init
Percent Solids Hydrocarbons EPH	9 0. 7 7.14	% m g/K g	SM17 2540G 3510/3550/8100M		08/20	08/20 08/21	M DU J BH
VPH & BTEX Hydrocarbons VPH	0.400	U mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020	U mg/Kg U mg/Kg U mg/Kg U mg/Kg U mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21	HLS HLS HLS

See Special Instructions Above

** See Sample Remarks Above

U = Undetected. Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

emlab Ref.# :93.4198-12 Client Sample ID :BTR SD08 SD05

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS

Project Name Project#

PWSID

:DEW LINE :BARTER :UA

RUSH Order

:69762

Report Completed :08/23/93 Collected

:08/16/93

@ 17:46 hrs.

Received

:08/19/93 @ 18:45 hrs.

Technical Director: STEPHEN C. EDE

Released By: State C. 2

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results (QC Qual Unit	s Meth⊙d	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	87.3 4.27	% mg/K	SM17 2540G g 3510/3550/8100M		08/20	08/20 08/21	MDU JBH
VPH & BTEX Hydrocarbons VPH	2.00	mg/K	EPA 8015M/8020 g EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020	U mg/k U mg/k U mg/k U mg/k U mg/k	g EPA 8020 g EPA 8020 g EPA 8020		08/20 08/20 08/20	08/21 08/21 08/21 08/21 08/21	WLS WLS WLS WLS

See Special Instructions Above See Sample Remarks Above

- Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not AnalyzedLT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



Client Name

COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-6 Client Sample ID :BTR SD08 SD05

Matrix :SOIL FAX: (907) 561-5301

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2343

:ICF KAISER ENGINEERING :69700 WORK Order :RAY MORRIS Report Completed :09/17/93

Ordered By Project Name :DEW LINE Collected :08/16/93 @ 17:46 hrs :08/19/93 @ 10:50 hr: Project# :BARTER Received

PWSID :UA Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

		QC			Allowable	Ext.	Anal	
Parameter	Results	Qual	Units	Method	Limits	Date	Date	Init
Volatile Organics				EPA 8260				
Benzene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	KW
Bromobenzene	0.025	บ	nng/Kg	EPA 8260		08/28	08/28	KWI
Bromochloromethane	0.025	ប	mg/Kg	EPA 8260		08/28	08/28	KWP
Bromodichloromethane	0.025	บ	mg/Kg	EPA 8260		08/28	08/28	KWP
Bromoform	0.025	บ	mg/Kg	EPA 8260		08/28	08/28	KW
Bromomethane	0.025	บ	mg/Kg	EPA 8260		08/28	08/28	KWI
n-Butylbenzene	0.025	U	ng/Kg	EPA 8260		08/28	08/28	KWP
sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260			08/28	K
tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260			08/28	K
Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260			08/28	KWE
Chlorobenzene	0.025	U	mg/Kg	EPA 8260			08/28	KWP.
Chloroethane	0.025	U	nng/Kg	EPA 8260			08/28	KWY
Chloroform	0.025	U	mg/Kg	EPA 8260			08/28	KWM
Chloromethane	0.025	U	nng/Kg	EPA 8260		08/28		KWE
2-Chlorotoluene	0.025	U	nng/Kg	EPA 8260			08/28	KWK
4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260			08/28	KWE
Dibromochloromethane	0.025	U	nag/Kg	EPA 8260			08/28	KWM
12Dibromo3Chloropropane	0.025	U	nog/Kg	EPA 8260			08/28	KWK
1,2-Dibromoethane	0.025	บ	mg/Kg	EPA 8260			08/28	KWM
Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,2-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,1-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
cis-1,2-Dichloroethene	0.025	บ	mg/Kg	EPA 8260		08/28		KWM
trans1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,3-Dichloropropane	0.025	ប	mg/Kg	EPA 8260		08/28		KWM
2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
Ethylbenzene	0.025	U	mg/Kg	EPA 8260		08/28		KWH
Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
Isopropylbenzene	0.025	U	mg/Kg	EPA 8260		08/28		KU
p-Isopropyltoluene	0.025	U	mg/Kg	EPA 8260		08/28	08/28	K



lab Ref.#

:93.4173-6

Crient Sample ID :BTR SD08 SD05

REPORT of ANALYSIS

5633 B STREET ANCHORAGE. AK 99518 TEL: (907) 562-2343

Matrix :SOIL		ANCHORAGE, AK 99518			
			TEL: (907) 562-2343 FAX: (907) 561-5301		
Methylene Chloride	0.025 U mg/Kg				
Napthalene	0 00c	EPA 8260	08/28 08/28 KW		
n-Propylbenzene	0 000 - "3/1/9	EPA 8260	00 (20		
Styrene	0.000	EPA 8260	00 /00 0		
1112-Tetrachloroethane	0.005 ** ""9/1/9	EPA 8260	00 (00 00 10		
1122-Tetrachloroethane	0 025	EPA 8260	00 (00 00 00		
retrachioroethene	0.000	EPA 8260	00 /00		
Toluene	0.000	EPA 8260	00 (00 00 10 -		
1,2,3-Trichlorobenzene	0.000 - "9/1/9	EPA 8260	08/28 08/28 KWM		
1,2,4-ifichiorobenzene	0 025 11 119/119	EPA 8260	08/28 08/28 KWM		
1,1,1-Trichloroethane	0 005 - "9/1/9	EPA 8260	08/28 08/28 KWM		
1,1,2-Trichloroethane	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWH		
Trichloroethene	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
Trichlorofluoromethana	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
1,4,3-Trichloropropage	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
1,4,4-irlmethvlbenzene	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
1,3,5-Trimethylbenzene	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
Vinyl Chloride	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
p+m-Xylene	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
o-Xylene	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
•	0.025 U mg/Kg	EPA 8260	08/28 08/28 KWM		
Semivolatile Organics		— · · · · · · · · · · · · · · · · · · ·	08/28 08/28 KWM		
Phenol	0.000	EPA 8270			
(2-Chloroethyl)ether	0.200 U mg/Kg	EPA 8270			
hlorophenol	0.200 U mg/Kg	EPA 8270	08/29 09/13 HTT		
1,3-Dichlorobenzene	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
1,4-Dichlorobenzene	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
Benzyl Alcohol	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
1,2-Dichlorobenzene	1.00 U mg/Kg	EPA 8270	08/29 09/13 MTT		
2-Methylphenol	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
bis(2-Chloroisopropyl)e	0.200 U mar/Ka	EPA 8270	08/29 09/13 MTT		
4-Methylphenol	0.200 U ma/Ka	EPA 8270	08/29 09/13 MTT		
n-Nitroso-di-n-Propylam	0.200 U ma/Ka	EPA 8270	08/29 09/13 MTT		
Hexachloroethane	0.200 U mq/Ka	EPA 8270	08/29 09/13 MTT		
Nitrobenzene	0.200 U mor/Kor	EPA 8270	08/29 09/13 MTT		
Isophorone	0.200 U mg/Kg		08/29 09/13 MTT		
2-Nitrophenol	0.200 U ma/Ka	EPA 8270	08/29 09/13 MTT		
2,4-Dimethylphenol	0.200 U ma/Ka	EPA 8270 EPA 8270	08/29 09/13 MTT		
Benzoic Acid	0.200 U ma/ka	EPA 8270	08/29 09/13 MTT		
bis(2-Chlomonth -)	0.200 U ma/Ka	EFA 02/U	08/29 09/13 MTT		
bis(2-Chloroethoxy)Meth 2,4-Dichlorophenol	0.200 U ma/Ka	EPA 8270	08/29 09/13 MTT		
1.2 4-Trickle	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
1,2,4-Trichlorobenzene Naphthalene	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
4-Chloroaniline	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
- curologuiline	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
lexachlorobutadiene	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
1-Chloro-3-Methylphenol	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
?-Methylnaphthalene	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
lexachlorocyclopentadie	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
.4,6-Trichlorophenol	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
,4,5-Trichlorophenol	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
-Chloronaphthalene	0.200 U mg/Kg	EPA 8270	08/29 09/13 MTT		
	mg/ r/g	EPA 8270	00 (00 00		
_			08/29 09/13 MTT		



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Chemlab Ref.# :93.4173-6		REF	PORT of A	MALYSIS		5500.0	******
Client Sample ID :BTR SD08 SD	۸۲					5633 B ANCHORAGE, A	STREET
Matrix :SOIL	05					TEL: (907) 5	62-2343
Matrix :SOIL						FAX: (907) 5	
2-Nitroaniline	0 000						
Dimethylphthalate	0.200	_	mg/Kg	EPA 8270		08/29 09/13	MTT
Acenaphthylene	0.200	-	mg/Kg	EPA 8270		08/29 09/13	MTT
2,6-Dinitrotoluene	0.200	_	nag∕Kg	EPA 8270		08/29 09/13	MIT
2.Vitmonillo	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MIT
3-Nitroaniline	0.200	U	ng/Kg	EPA 8270		08/29 09/13	MTT
Acenaphthene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	
2,4-Dinitrophenol	0.200	U	mg/Kg	EPA 8270		08/29 09/13	HTT
4-Nitrophenol	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Dibenzofuran	0.200	Ü	mg/Kg	EPA 8270		00/23 03/13	MTT
2,4-Dinitrotoluene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Diethylphthalate	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
4-Chlorophenyl-Phenylet	0.200	Ū	ng/Kg	EPA 8270		08/29 09/13	MTT
Fluorene	0.200	Ū	mg/Kg	EPA 8270		08/29 09/13	MTT
4-Nitroaniline	0.200	Ü	mg/Kg			08/29 09/13	HTT
4,6-Dinitro-2-Methylphe	0.200	บ	mg/Kg	EPA 8270		08/29 09/13	MIT
n-Nitrosodiphenylamine	0.200	Ü		EPA 8270		08/29 09/13	MIT
4-Bromophenyl-Phenyleth	0.200	บั	mg/Kg	EPA 8270		08/29 09/13	MTT
Hexachlorobenzene	0.200	Ü	mg/Kg	EPA 8270		08/29 09/13	MTT
Pentachlorophenol	0.200	Ü	ng/Kg	EPA 8270		08/29 09/13	MTT
Phenanthrene	0.200	Ü	mg/Kg	EPA 8270		08/29 09/13	MTT
Anthracene	0.200	บ	mg/Kg	EPA 8270		08/29 09/13	MTT
di-n-Butylphthalate	0.200		mg/Kg	EPA 8270		08/29 09/13	MTT
Fluoranthene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	HT
Pyrene		U	mg/Kg	EPA 8270		08/29 09/13	HTT
Butylbenzylphthalate	0.200	Ü	ng∕K g	EPA 8270		08/29 09/13	MTT
3,3-Dichlorobenzidine	0.200	Ü	mg/Kg	EPA 8270		08/29 09/13	MTT
Benzo(a)Anthracene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Chrysene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
bis(2-Ethylhexyl)Phthal	0.200	U	mg∕Kg	EPA 8270		08/29 09/13	MTT
di-p Octulable 3-4-	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
di-n-Octylphthalate	0.200	U	mg∕Kg	EPA 8270		08/29 09/13	MTT
Benzo(b)Fluoranthene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Benzo(k)Fluoranthene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Benzo(a)Pyrene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Indeno(1,2,3-cd)Pyrene	0.200	U	mg∕Kg	EPA 8270		08/29 09/13	MTT
Dibenz(a,h)Anthracene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	
Benzo(g,h,i)Perylene	0.200	U	mg/Kg	EPA 8270		08/29 09/13	MTT
Comple Day						00/23 03/13	HTT
Sample Preparation				EPA 3050 Digest			i
Total Metals Analysis				-			
ICP Screen, ICF				EPA	n/a		
Aluminum	2400		mg /Kg	EPA 6010	11/0	00/24 00/25	5
Antimony	57	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	5.7	Ū	mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	32		mg/Kg	EPA 6010		08/24 08/25	DFT.
Beryllium	3.2		nng/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	2.8	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	5000	_	mg/Kg			08/24 08/25	DFL
Chromium	5.3		mg/K g	EPA 6010		08/24 08/25	DFL
Cobalt	57	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	5.8	•	nng/kg nng/Kg	EPA 6010		08/24 08/25	DFL
Iron	12000		mg /Kg	EPA 6010		08/24 08/25	DFI
			 1/A	EPA 6010		08/24 08/25	DFL

REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# Client Sample Matrix	:93.4173-6 ID :BTR SD08 SD05 :SOIL		REP	JKI OT ANA	ulysis		T	5633 B ST ORAGE. AK 9 EL: (907) 562 AX: (907) 561	99518 !-2343
Lead Magnesium Manganese Molybdenum Nickel		5.7 1400 250 2.9	U U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA EPA	6010 6010 6010 6010			DFI DFI DFI DFI

6.6 mg/Kg EPA 6010 08/24 08/25 Potassium 336 mg/Kg EPA 6010 Selenium 08/24 08/25 57 mg/Kg **EPA** 6010 08/24 08/25 Silver 2.9 U mg/Kg EPA 6010 08/24 08/25 Sodium 72 mg/Kg EPA 6010 08/24 08/25 Thallium 0.28 U mg/Kg EPA 7841 08/24 08/26 Vanadium 8.4 mg/Kg **EPA** 6010 08/24 08/25 Zinc 27 mg/Kg **EPA** 6010 08/24 08/25 TOC, Soil

ppm

PSEP Ref Lab

1670

e Special Instructions Above see Sample Remarks Above

J = Undetected, Reported value is the practical quantification limit.) = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Than DFI

DFI

DFI

DFI

DFT

KAL

DFI

DFI





Matrix

PWSID

COMMERCIAL TESTING & ENGINEERING CO.

REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES



5633 B STREET

Chemlab Ref.#

:93.4173-7

Client Sample ID :BTR SD08 SD05 DUPLICATE

:SOIL

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS

Project Name Project#

:DEW LINE

:BARTER

:UA

Collected Received

WORK Order

:69700 Report Completed :09/17/93

:08/16/93 @ 17:46 hr: :08/19/93 @ 10:50 hr:

ANCHORAGE. AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini [.]
Sample Preparation				EPA 3050 Digest				
Total Metals Analysis				_				
ICP Screen, ICF				EPA	n/a			
Aluminum	2100		mg/Kg	EPA 6010	•	08/24	08/25	DFT
Antimony	57	U	mg/Kg	EPA 6010		08/24		DET
Arsenic	5.7	U	mg/Kg	EPA 6010		08/24		DFI
Barium	25		mg/Kg	EPA 6010		08/24		DET
Beryllium	2.9	U	mg/Kg	EPA 6010		08/24		DFI
Cadmium	29	U	mg/Kg	EPA 6010			08/254	EI
Calcium	9700		mg/Kg	EPA 6010			08/25	FI
Chromium	4.7		mg/Kg	EPA 6010		08/24		DFI
Cobalt	57	U	mg/Kg	EPA 6010		08/24		DFT
Copper	6.3		mg/Kg	EPA 6010		08/24		DFI
Iron	8 00 0		mg/Kg	EPA 6010		08/24		DFI
Lead	5.7	U	mg/Kg	EPA 6010		08/24		DET
Mag nesium	3000		mg/Kg	EPA 6010		08/24		DFT
Manganese	190		mg/Kg	EPA 6010		08/24	08/25	DFI
Molybdenum	2.9	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Nickel	5.3		mg/Kg	EPA 6010		08/24	08/25	DFI
Potassium	280	U	mg/Kg	EPA 6010		08/24	08/25	DFT
Selenium	57	U	mg/Kg	EPA 6010		08/24	08/25	DFL
Silver	2.9	U	mg/Kg	EPA 6010		08/24	08/25	DFI
Sodium	59		mg/Kg	EPA 6010		08/24		DFT
Thallium	0.28	U	mg/Kg	EPA 7841		08/24		KAN
Vanadium	8.1		mg/Kg	EPA 6010		08/24		DFL
Zinc	26		mg/Kg	EPA 6010		08/24		DFL

* See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4173-8

Client Sample ID :BTR SD08 SD05 SPIKE

Matrix

:SOIL

WORK Order

:69700 Report Completed :09/17/93

Client Name Ordered By Project Name :ICF KAISER ENGINEERING :RAY MORRIS :DEW LINE

Project# **PWSID**

:BARTER

:UA

Collected :08/16/93 @ 17:46 hrs Received :08/19/93 @ 10:50 hr: Technical Director: STEPHEN, C. EDE

5633 B STREET

ANCHORAGE. AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKE AND SPIKE DUPLICATE RECOVERIES AND

RPD, SEE QC SUMMARY.

	Parameter	R es ults	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.273		mg/Kg	EPA 8260		08/28	08/28	KWI
	Bromobenzene	0.025	U	mg/Kg	EPA 8260	4	08/28		KWI
	Bromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWI
	Bromodichloromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWP
	Bromoform	0.025	ប	mg/Kg	EPA 8260		08/28		KWP
	Bromomethane	0.025	ប	mg/Kg	EPA 8260		08/28		KWP
	n-Butylbenzene	0.025	ប	mg/Kg	EPA 8260		08/28		KWP
	sec-Butylbenzene	0.025	ប	mg/Kg	EPA 8260		08/28		KWF
	tert-Butylbenzne	0.025	Ü	mg/Kg	EPA 8260		08/28		KWP
	Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260		08/28		KWP
	Chlorobenzene	0.278		mg/Kg	EPA 8260			08/28	KWE
	Chloroethane	0.025	U	mg/Kg	EPA 8260		08/28		KWY
	Chloroform	0.025	U	mg/Kg	EPA 8260		08/28		KWP
	Chloromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWF
	2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28		KWF
	4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28		KWF
	Dibromochloromethane	0.025	ប	mg/Kg	EPA 8260			08/28	KWF
	12Dibromo3Chloropropane	0.025	ប	mg/Kg	EPA 8260		08/28		KWI
	1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260			08/28	KW
	Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/28		KWI
	1,2-Dichlorobenzene	0.025	บ	mg/Kg	EPA 8260			08/28	KWI
	1,3-Dichlorobenzene	0.025	บ	mg/Kg	EPA 8260			08/28	KWK
	1,4-Dichlorobenzene	0.025	บ	mg/Kg	EPA 8260			08/28	KWE
	Dichlorodifluoromethane	0.025	Ū	mg/Kg	EPA 8260		08/28		KWM
	1,1-Dichloroethane	0.025	Ū	mg/Kg	EPA 8260		08/28		KWM
	1,2-Dichloroethane	0.025	Ü	mg/Kg	EPA 8260		08/28		KWM
	1,1-Dichloroethene	0.047	_	mg/Kg	EPA 8260		08/28		KWM
	cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	trans1,2-Dichloroethene	0.025	Ū	mg/Kg	EPA 8260		08/28		KWM
	1,2-Dichloropropane	0.025	Ū	ng/Kg	EPA 8260		08/28		KWM
	1,3-Dichloropropane	0.025	Ū	mg/Kg	EPA 8260			08/28	KWM
	2,2-Dichloropropane	0.025	Ū	mg/Kg	EPA 8260		08/28		KWM
	1,1-Dichloropropene	0.025	Ŭ	mg/Kg	EPA 8260		08/28		KWM
	Ethylbenzene	0.025	Ŭ	mg/Kg	EPA 8260			08/28	KWM
_	Hexachlorobutadiene	0.025	บ	mg/Kg	EPA 8260			08/28	KWM
	Isopropylbenzene	0.025	Ü	mg/Kg	EPA 8260		08/28		KWM



ENVIRONMENTAL LABORATORY SERVICES



:93.4173-8 Chemlab Ref.# Client Sample ID :BTR SD08 SD05 SPIKE 5633 B STREET ANCHORAGE. AK 99518 TEL: (907) 562-2343 FAY: (907) 561-5000

Matrix :SOIL				FAX: (907) 561-5301
p-Isopropyltoluene	0.005			
	0.025 t	3, 3	EPA 8260	08/28 08/28 KW
Methylene Chloride Napthalene	0.025 t		EPA 8260	08/28 08/28 KWI
	0.025 t		EPA 8260	08/28 08/28 KW
n-Propylbenzene	0.025 t	~~3,3	EPA 8260	08/28 08/28 KW
Styrene	0.025 U	-3,	EPA 8260	08/28 08/28 KW
1112-Tetrachloroethane	0.025 t	~~3/ ••3	EPA 8260	08/28 08/28 KW
1122-Tetrachloroethane	0.025 U		EPA 8260	08/28 08/28 KW
Tetrachloroethene	0.025 U		EPA 8260	08/28 08/28 KW
Toluene	0.271	mg∕K g	EPA 8260	08/28 08/28 KWA
_1,2,3-Trichlorobenzene	0.025 U	mg/Kg	- EPA 8260	08/28 08/28 KW
1,2,4-Trichlorobenzene	0 .02 5 t	mg/Kg	EPA 8260	08/28 08/28 KW
1,1,1-Trichloroethane	0 .025 t	mg/Kg	EPA 8260	08/28 08/28 KWP
1,1,2-Trichloroethane	0.025 ti		EPA 8260	08/28 08/28 KWI
Trichloroethene	0.257	mg/Kg	EPA 8260	08/28 08/28 KW
Trichlorofluoromethane	0.028 U		EPA 8260	08/28 08/28 KW
1,2,3-Trichloropropane	0.028 U		EPA 8260	08/28 08/28 KWP
1,2,4-Trimethylbenzene	0.028 U	3,	EPA 8260	08/28 08/28 KWI
1,3,5-Trimethylbenzene	0.028 U	71	EPA 8260	08/28 08/28 KWE
Vinyl Chloride	0.028 U	3,	EPA 8260	08/28 08/28 KWM
p+m-Xylene	0.028 U	~	EPA 8260	08/28 08/28 KWH
o-Xylene	0.028 U	mg/Kg	EPA 8260	
	0.020	"May tra	EFA 0200	08/28 08/28 KWM
Semivolatile Organics			EPA 8270	
Phenol	1.96	mg/Kg	EPA 8270	08/29 09/13 min
bis(2-Chloroethyl)ether	0.210 U		EPA 8270	08/29 09/13 MTT
2-Chlorophenol	1.83	mg/Kg	EPA 8270	08/29 09/13 MTT
1,3-Dichlorobenzene	0.210 U		EPA 8270	08/29 09/13 MTT
1,4-Dichlorobenzene	1.76	mg/Kg	EPA 8270	08/29 09/13 MTT
Benzyl Alcohol	0.210 U		EPA 8270	08/29 09/13 MTT
1,2-Dichlorobenzene	0.210 U		EPA 8270	08/29 09/13 MTT
2-Methylphenol	0.210 U		EPA 8270	08/29 09/13 MTT
bis(2-Chloroisopropyl)e	0.210 U	3/3	EPA 8270	08/29 09/13 MTT
4-Methylphenol	0.210 U	3, 3	EPA 8270	08/29 09/13 MTT
n-Nitroso-di-n-Propylam	1.78	ng/Kg	EPA 8270	08/29 09/13 MTT
Hexachloroethane	0.210 U		EPA 8270	08/29 09/13 MTT
Nitrobenzene	0.210 U		EPA 8270	08/29 09/13 MTT
Isophorone	0.210 U	3, 4.3	EPA 8270	08/29 09/13 MTT
2-Nitrophenol	0.210 U	~~ 3/ ••3	EPA 8270	08/29 09/13 MTT
2,4-Dimethylphenol	0.210 U		EPA 8270	08/29 09/13 MTT
Benzoic Acid	0.210 U	_, _,	EPA 8270	08/29 09/13 MTT
bis(2-Chloroethoxy)Meth	0.210 U		EPA 8270	08/29 09/13 MTT
2,4-Dichlorophenol	0.210 U		EPA 8270	08/29 09/13 HTT
1,2,4-Trichlorobenzene	1.85	mg/Kg	EPA 8270	08/29 09/13 MTT
Naphthalene	0.210 U		EPA 8270	08/29 09/13 MTT
4-Chloroaniline	0.210 U		EPA 8270	08/29 09/13 HTT
Hexachlorobutadiene	0.210 U	3, v-3	EPA 8270	
4-Chloro-3-Methylphenol	1.90	ng/Kg	EPA 8270	
2-Methylnaphthalene	0.210 U		EPA 8270	
Hexachlorocyclopentadie	0.210 U		EPA 8270	08/29 09/13 MTT 08/29 09/13 MTT
2,4,6-Trichlorophenol	0.210 U	3,	EPA 8270	'
2,4,5-Trichlorophenol	0.210 U		EPA 8270	08/29 09/13 08/29 09/13
, .,		mA\ 17A	ELFA UZIV	00/29 03/13





COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

NOS 30H	-					
Chemlab Ref.# :93.4173-8	REP	ORT of Al	NALYSIS		5 633 B ST	REET
					ANCHORAGE. AK	
Client Sample ID :BTR SD08 SD	005 SPIKE				TEL: (907) 562	
Matrix :SOIL					FAX: (907) 561	-5301
0.053						
2-Chloronaphthalene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MT.
2-Nitroaniline	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MT:
Dimethylphthalate	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MT:
Acenaphthylene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MT
2,6-Dinitrotoluene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MT
3-Nitroaniline	0.210 U	mg/Kg	EPA 8270		08/29 09/13	HT
Acenaphthene	1.92	mg/Kg	EPA 8270		08/29 09/13	HII
2,4-Dinitrophenol	0.210 U	mg/Kg	EPA 8270		08/29 09/13	HI
_4-Nitrophenol	0.095	mg/Kg			08/29 09/13	MII
Dibenzofuran	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MII
2,4-Dinitrotoluene	1.91	mg/Kg	EPA 8270		08/29 09/13	HII
Diethylphthalate	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MI
4-Chlorophenyl-Phenylet	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MII
Fluorene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MTI
4-Nitroaniline	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MII
4,6-Dinitro-2-Methylphe	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MTI
n-Nitrosodiphenylamine	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MII
4-Bromophenyl-Phenyleth	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MII
Hexachlorobenzene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	HII
Pentachlorophenol	1.87	ng/Kg	EPA 8270		08/29 09/13	MII
Phenanthrene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MII
Anthracene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MII
di-n-Butylphthalate	2.03	mg/Kg	EPA 8270		08/29 09/13	HII
Fluoranthene	0.210 บ	mg/Kg	EPA 8270		08/29 09/13	MII
Pyrene	1.87	mg/Kg	EPA 8270		08/29 09/13	MII
Butylbenzylphthalate	0.210 U	ng/Kg	EPA 8270		08/29 09/13	
3,3-Dichlorobenzidine	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MII
Benzo(a)Anthracene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	HTT
Chrysene	0.210 U	mg/Kg	EPA 8270			MTT
bis(2-Ethylhexyl)Phthal	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MIT
di-n-Octylphthalate	0.210 U	mg/Kg	EPA 8270		08/29 09/13	HIT
Benzo(b)Fluoranthene	0.210 U	ing/Kg			08/29 09/13	MIT
Benzo(k)Fluoranthene	0.210 U		EPA 8270		08/29 09/13	MTT
Benzo(a)Pyrene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MTT
Indeno(1,2,3-cd)Pyrene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	HII
Dibenz(a,h)Anthracene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	HII
Benzo(g,h,i)Perylene	0.210 U	mg/Kg	EPA 8270		08/29 09/13	MTT
Dei. 20 (9 / 11 / 1 / 1 CT / 1 C1 /	0.210	m g/K g	EPA 8270		08/29 09/13	MTT
Sample Preparation			F70 2050 Diment			
Total Metals Analysis			EPA 3050 Digest			
ICP Screen, ICF						
Aluminum	2600	/22-	EPA	n/a		
Antimony	2600 90	mg/Kg	EPA 6010		08/24 08/25	DEL
Arsenic		mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	110	mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium	150	mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	44	mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	52 7300	mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	7300	mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	110	mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	120	mg/Kg	EPA 6010		08/24 08/25	DFL
cobber	120	mg/Kg	EPA 6010		08/24 08/25	DFL





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS **5633 B STREET** Chemlab Ref.# :93.4173-8 ANCHORAGE. AK 99518 TEL: (907) 562-2343 Client Sample ID :BTR SD08 SD05 SPIKE Matrix FAX: (907) 561-5301 :SOIL Iron 7700 mg/Kg EPA 6010 08/24 08/25 DF Lead 100 mg/Kg **EPA** 6010 08/24 08/25 DF: Magnesium 3000 EPA 6010 mg/Kg 08/24 08/25 Manganese 320 mg/Kg **EPA** 6010 08/24 08/25 DE Molybdenum 100 mg/Kg **EPA** 6010 08/24 08/25 DEI Nickel 110 mg/Kg **EPA** 6010 08/24 08/25 DET Potassium 1640 mg/Kg **EPA** 6010 08/24 08/25 DFi Selenium 130 mg/Kg **EPA** 6010 08/24 08/25 DEI Silver 19 mg/Kg **EPA** 6010 08/24 08/25 DFI - Sodium 1400 mg/Kg **EPA** 6010 08/24 08/25 DFT Thallium 2.30 mg/Kg EPA 7841 08/24 08/26 KAI Vanadium 110 mg/Kg EPA 6010 08/24 08/25 DET Zinc 140 mg/Kg **EPA** 6010 08/24 08/25 DFI

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

:93.4173-11 Client Sample ID :BTR SD08 SD05 SPIKE DUPLICATE

Matrix :SOIL ANCHORAGE. AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

Chemlab Ref.#

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

:69700

Report Completed :09/17/93

Collected Received

:08/16/93 @ 17:46 hrs :08/19/93 @ 10:50 hrs

5633 B STREET

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKE AND SPIKE DUPLICATE RECOVERIES AND RPD, SEE QC SUMMARY. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW

THE CALIBRATION RANGE.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.234		mg/Kg	EPA 8260		08/28	08/28	KWH
	Bromobenzene	0.025	U	mg/Kg	EPA 8260			08/28	KWM
	Bromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Bromodichloromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
_	Bromoform	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Bromomethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	h-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	sec-Butylbenzene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	tert-Butylbenzne	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Carbon Tetrachloride	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Chlorobenzene	0.236		mg/Kg	EPA 8260		08/28		KWM
	Chloroethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Chloroform	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Chloromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	2-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	4-Chlorotoluene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Dibromochloromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	1,2-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	1,3-Dichlorobenzene	0.025	Ū	mg/Kg	EPA 8260		08/28		KWH
	1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	1,2-Dichloroethane	0.042		mg/Kg	EPA 8260		08/28		KWM
	1,1-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	cis-1,2-Dichloroethene	0.025	บ	mg/Kg	EPA 8260		08/28		KWM
	trans1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/28		KWM
	1,2-Dichloropropane	0.025	Ū	mg/Kg	EPA 8260		08/28		KWM
	1,3-Dichloropropane	0.025	Ū	mg/Kg	EPA 8260		08/28		KWM
	2,2-Dichloropropane	0.025	Ü	mg/Kg	EPA 8260		08/28		KWM
	1,1-Dichloropropene	0.025	บ	mg/Kg	EPA 8260		08/28		KWM
	Ethylbenzene	0.025	Ū	mg/Kg	EPA 8260		08/28		KWM
₹				J, 3			VO/ 20	00/ ZO	UMU



ENVIRONMENTAL LABORATORY SERVICES



+ NOE BIN	מפסמ	ORT of AN	AI VCTC	
Chemlab Ref.# :93.4173-11		ORI OF AN	ALISIS	5633 B STREET
Client Sample ID :BTR SD08 S		JPLI CATE		ANCHORAGE, AK 99518 TEL: (907) 562-2343
Matrix :SOIL				FAX: (907) 561-5301
Hexachlorobutadiene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
Isopropylbenzene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KWI
p-Isopropyltoluene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
Methylene Chloride	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
Napthalene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
n-Propylbenzene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KWN
Styrene 1112-Tetrachloroethane	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KWh
1122-Tetrachloroethane	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
- Tetrachloroethene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
Toluene	0.238	mg/Kg	EPA 8260	08/28 08/28 KW
1,2,3-Trichlorobenzene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KWh
1,2,4-Trichlorobenzene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KWh
1,1,1-Trichloroethane	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KWP
1,1,2-Trichloroethane	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
Trichloroethene	0.211	mg/Kg	EPA 8260	08/28 08/28 KWP
Trichlorofluoromethane	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KWY
1,2,3-Trichloropropane 1,2,4-Trimethylbenzene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KW
1,3,5-Trimethylbenzene	0.025 U	mg/Kg	EPA 8260	08/28 08/28 KWM
Vinyl Chloride	0.025 ປ 0.025 ປ	mg/Kg	EPA 8260	08/28 08/28 KWH
p+m-Xylene	0.025 U	mg/Kg	EPA 8260 EPA 8260	08/28 08/28 KWM
o-Xylene	0.025 U	mg/Kg mg/Kg	EPA 8260	08/28 08/28 08/28 08/28
	0.025	may ma	E R 0200	00/20 00/20
Semivolatile Organics			EPA 8270	
Phenol	0.635	mg/Kg	EPA 8270	08/28 09/13 MTT
bis(2-Chloroethyl)ether	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
2-Chlorophenol	0.602	mg/Kg	EPA 8270	08/28 09/13 MTT
1,3-Dichlorobenzene	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
1,4-Dichlorobenzene	0.514	mg/Kg	EPA 8270	08/28 09/13 MTT
Benzyl Alcohol	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
1,2-Dichlorobenzene	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
2-Methylphenol	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
bis(2-Chloroisopropyl)e	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
4-Methylphenol	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
n-Nitroso-di-n-Propylam	0.680	mg/Kg	EPA 8270	08/28 09/13 MTT
Hexachloroethane	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
Nitrobenzene	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
Isophorone	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
2-Nitrophenol	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
2,4-Dimethylphenol	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
Benzoic Acid	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
bis(2-Chloroethoxy)Meth	0.210 U	mg/Kg	EPA 827C	08/28 09/13 MTT
2,4-Dichlorophenol	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
1,2,4-Trichlorobenzene	0.632	mg/Kg	EPA 8270	08/28 09/13 MTT
Naphthalene	0.210 U	mg/Kg	EPA 8270	08/28 09/13 HTT
4-Chloroaniline	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
Hexachlorobutadiene	0.210 U	mg/Kg	EPA 8270	08/28 09/13 MTT
4-Chloro-3-Methylphenol	0.695	mg/Kg	EPA 8270	08/28 09/13 MTT
2-Methylnaphthalene Hexachlorocyclopentadie	0.210 U	mg/Kg	EPA 8270	08/28 09/13 08/28 09/13
HEVACUTOTOCACTOPELICAGIE	0.210 U	mg/Kg	EPA 8270	08/28 09/13 T



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# 5633 B STREET :93.4173-11 ANCHORAGE, AK 99518 Client Sample ID :BTR SD08 SD05 SPIKE DUPLICATE TEL: (907) 562-2343 Matrix :SOIL FAX: (907) 561-5301 2,4,6-Trichlorophenol 0.210 U EPA 8270 ma/Ka 08/28 09/13 MT 2,4,5-Trichlorophenol 0.210 U EPA 8270 mg/Kg 08/28 09/13 MT 2-Chloronaphthalene 0.210 U **EPA 8270** mg/Kg 08/28 09/13 M 2-Nitroaniline 0.210 U EPA 8270 mg/Kg 08/28 09/13 MT Dimethylphthalate 0.210 U mg/Kq **EPA** 8270 08/28 09/13 MT Acenaphthylene 0.210 U mq/Kq **EPA** 8270 08/28 09/13 MT 2,6-Dinitrotoluene 0.210 U mg/Kg EPA 8270 08/28 09/13 MT 3-Nitroaniline 0.210 mg/Kg EPA 8270 08/28 09/13 MT Acenaphthene 0.672 mg/Kg **EPA** 8270 08/28 09/13 MT 2,4-Dinitrophenol 0.210 mg/Kg **EPA** 8270 08/28 09/13 MT 4-Nitrophenol 0.0078 J mg/Kg **EPA** 8270 08/28 09/13 MT Dibenzofuran 0.210 U mg/Kq **EPA** 8270 08/28 09/13 MT 2,4-Dinitrotoluene 0.672 mg/Kg EPA 8270 08/28 09/13 MT Diethylphthalate 0.210 U ma/Ka **EPA 8270** 08/28 09/13 MT 4-Chlorophenyl-Phenylet 0.210 U mg/Kq **EPA** 8270 08/28 09/13 MT Fluorene 0.210 U mg/Kg EPA 8270 08/28 09/13 MT 4-Nitroaniline 0.210 U mq/Kq **EPA** 8270 08/28 09/13 HT 4,6-Dinitro-2-Methylphe 0.210 U mg/Kg **EPA** 8270 08/28 09/13 MT n-Nitrosodiphenylamine 0.210 U mg/Kg EPA 8270 08/28 09/13 HT. 4-Bromophenyl-Phenyleth 0.210 U mg/Kg **EPA** 8270 08/28 09/13 HT. Hexachlorobenzene 0.210 **EPA** 8270 mg/Kg 08/28 09/13 MT. Pentachlorophenol 0.572 **EPA** 8270 mg/Kq 08/28 09/13 MT. Phenanthrene 0.210 U ng/Kg EPA 8270 08/28 09/13 MT. Anthracene 0.210 mg/Kg **EPA** 8270 08/28 09/13 MT. di-n-Butylphthalate 0.958 mg/Ka **EPA** 8270 08/28 09/13 HT. Fluoranthene 0.210 11 mg/Kg **EPA** 8270 08/28 09/13 HT. Pyrene 0.806 mg/Kg **EPA** 8270 08/28 09/13 MI Butylbenzylphthalate 0.210 U mg/Kg EPA 8270 08/28 09/13 HT: 3,3-Dichlorobenzidine 0.210 mg/Kg **EPA** 8270 08/28 09/13 HT. Benzo(a) Anthracene 0.210 U mg/Kg EPA 8270 08/28 09/13 MT Chrysene 0.210 U mg/Kg **EPA** 8270 MI 08/28 09/13 bis(2-Ethylhexyl)Phthal 0.210 U mg/Kg EPA 8270 08/28 09/13 MIT di-n-Octylphthalate 0.210 П mg/Kg EPA 8270 08/28 09/13 MI Benzo(b)Fluoranthene 0.210 Ħ mg/Kg **EPA** 8270 08/28 09/13 MT Benzo(k)Fluoranthene 0.210 U mg/Kg EPA 8270 08/28 09/13 MI Benzo(a)Pyrene 0.210 U mg/Kg **EPA** 8270 08/28 09/13 MT Indeno(1,2,3-cd)Pyrene 0.210 U mg/Kg **EPA** 8270 08/28 09/13 MIT Dibenz(a,h)Anthracene 0.210 U **EPA** 8270 mg/Kg

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

0.210

U

mg/Kg

D = Secondary dilution.

Benzo(g,h,i)Perylene

UA = Unavailable

NA = Not Analyzed LT = Less Than

08/28 09/13

08/28 09/13

MTI

HIT

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)

EPA 8270



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4198-13 Client Sample ID :BTR SD08 SD09

Matrix

:SOIL

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

:RAY MORRIS :DEW LINE :BARTER

PWSID

:UA

:69762 RUSH Order

Report Completed :08/23/93

:08/16/93 @ 17:46 hrs. Collected :08/19/93 @ 18:45 hrs. Received

5633 B STR ANCHORAGE, AK 995

TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN C. EDE

Released By : State Call

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	76.5 7.46		SM17 2540G 3510/3550/8100M		08/20	08/20 08/21	MDU JBH
VPH & BTEX Hydrocarbons VPH	4.05	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020	U mg/Kg U mg/Kg U mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20	08/21 08/21 08/21 08/21 08/21	WLS WLS WLS

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyze

LT = Less Than GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Matrix

Client Sample ID :BTR SD08 SD09 :SOIL

Client Name

Chemlab Ref.#

:ICF KAISER ENGINEERING WORK Order

:69710

Ordered By

:RAY MORRIS

:93.4178-4

Report Completed :09/30/93

Project Name

:DEW LINE

:08/16/93 @ 17:46 hr Collected

Project# PWSID

:BARTER

:UA

Received :08/19/93 @ 10:50 hr Technical Director:STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M., PETER J.M.G.

 Parameter	R esu lts	QC Qual	Units	Method	Allowable Limits	Ext. Date	A nal Date	In i -
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWI
Bromobenzene	0.020	U	mg/Kg	EPA 8260			08/28	KWI
Bromochloromethane	0.020	ប	mg/Kg	EPA 8260			08/28	KW
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260			08/28	KWI
Bromoform	0.020	U	mg/Kg	EPA 8260			08/28	KWI
Bromomethane	0.020	ប	mg/Kg	EPA 8260			08/28	KWI
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260			08/28	KW
 sec-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260			08/28	KWE
tert-Butylbenzne	0.020	ប	mg/Kg	EPA 8260			08/28	KWF
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260			08/28	KWI
Chlorobenzene	0.020	U	mg/Kg	EPA 8260			08/28	KWP
Chloroethane	0.020	ប	mg/Kg	EPA 8260			08/28	KWP
Chloroform	0.020	Ü	mg/Kg	EPA 8260			08/28	KWK
Chloromethane	0.020	U	mg/Kg	EPA 8260			08/28	KWK
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/20		KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260			08/28	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260			08/28	KWP
12Dibromo3Chloropropane	0.020	ប	mg/Kg	EPA 8260			08/28	KWM
1.2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/20		KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260			08/28	KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20		KWM
1.3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20		KWM
1.4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/20		KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/20		KWM
1.1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1.1-Dichloroethene	0.020	U	m g/K g	EPA 8260		08/20	08/28	KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1.3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
2.2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
1.1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWH
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWH
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
 Isopropylbenzene	0.020	U	mg/Kg	EPA 8260		08/20	08/28	KWM
p-Isopropyltoluene	0.020	Ü	mg/Kg	EPA 8260		08/20	08/28	KWM
				```				



ENVIRONMENTAL LABORATORY SERVICES



\$ 5.21 - 474		מבום	ORT of AN	JAI VCTC			
Chemlab Ref.# :93.4178-4		REPU	ORI OI AN	AMPISIS	, NO	5633 B S	
Client Sample ID :BTR SD08 SD0	19					IORAGE. AK [EL: (907) 56	
Matrix :SOIL						AX: (907) 56	
Methylene Chloride	0.020	Ü	mg/Kg	EPA 8260	08/20	08/28	KWM
Napthalene	0.020	Ū	mg/Kg	EPA 8260		08/28	KWM
n-Propylbenzene	0.020	Ū	mg/Kg	EPA 8260		08/28	KWM
Styrene	0.020	Ū	mg/Kg	EPA 8260	08/20	08/28	KWM
1112-Tetrachloroethane	0.020	Ü	mg/Kg	EPA 8260		08/28	KWM
1122-Tetrachloroethane	0.020	Ŭ	mg/Kg	EPA 8260		08/28	KWM
Tetrachloroethene	0.020	Ü	mg/Kg	EPA 8260		08/28	KWM
Toluene	0.020	Ü	mg/Kg	EPA 8260		08/28	KWM
1.2.3-Trichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		08/28	KWM
1,2,4-Trichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		08/28	KWM
1,1,1-Trichloroethane	0.020	Ü	mg/Kg	EPA 8260		08/28	KWM
1,1,2-Trichloroethane	0.020	Ü		EPA 8260		08/28	KWH
		_	mg/Kg			08/28	KWM
Trichloroethene	0.020	Ŭ	mg/Kg	EPA 8260			
Trichlorofluoromethane	0.020	Ü	mg/Kg	EPA 8260		08/28	KWH
1,2,3-Trichloropropane	0.020	Ü	mg/Kg	EPA 8260		08/28	KWM
1,2,4-Trimethylbenzene	0.020	U	m <b>g/K</b> g	EPA 8260		08/28	KWH
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260		08/28	KWM
Vinyl Chloride	0.020	U	m <b>g/K</b> g	EPA 8260		08/28	KWM
p+m-Xylene	0.020	U	mg/Kg	EPA 8260		08/28	KWM
o-Xylene	0.020	U	m <b>g/K</b> g	EPA 8260	08/20	08/28	KWH
Semivolatile Organics				EPA 8270			_
	0 220		///-		08/27	00/20	
Phenol	0.230	U	mg/Kg	EPA 8270			
bis(2-Chloroethyl)ether	0.230	Ü	mg/Kg	EPA 8270	08/27		GV
2-Chlorophenol	0.230	U	mg/Kg	EPA 8270	08/27		<b>GV</b>
1,3-Dichlorobenzene	0.230	Ü	mg/Kg	EPA 8270	08/27		<b>GV</b>
1,4-Dichlorobenzene	0.230	U	mg/Kg	EPA 8270	08/27		G <b>V</b>
Benzyl Alcohol	0.500	U	m <b>g/K</b> g	EPA 8270		09/28	
1,2-Dichlorobenzene	0.230	U	m <b>g/K</b> g	EPA 8270	08/27		Ğ
2-Methylphenol	0.230	Ü	m <b>g/K</b> g	EPA 8270		09/28	G <b>V</b>
<pre>bis(2-Chloroisopropyl)e</pre>	0.230	U	m <b>g/K</b> g	EPA 8270	08/27	-	G <b>V</b>
4-Methylphenol	0.230	U	mg/Kg	EPA 8270		09/28	G <b>V</b>
n-Nitroso-di-n-Propylam	0.230	U	mg/Kg	EPA 8270	08/27		G <b>V</b>
Hexachloroethane	0.230	U	mg/Kg	EPA 8270	08/27	09/28	<b>GV</b>
Nitrobenzene	0.230	U	mg/Kg	EPA 8270	08/27	09/28	<b>GV</b>
Isophorone	0.230	U	mg/Kg	EPA 8270	08/27	09/28	<b>GV</b>
2-Nitrophenol	0.230	U	m <b>g/K</b> g	EPA 8270	08/27		<b>GV</b>
2,4-Dimethylphenol	0.230	Ū	mg/Kg	EPA 8270	08/27		<b>GV</b>
Benzoic Acid	0.230	Ū	mg/Kg	EPA 8270	08/27		<b>GV</b>
bis(2-Chloroethoxy)Meth	0.230	Ü	mg/Kg	EPA 8270	08/27		<b>GV</b>
2,4-Dichlorophenol	0.230	Ü	m <b>g/K</b> g	EPA 8270	08/27		<b>GV</b>
1,2,4-Trichlorobenzene	0.230	Ü		EPA 8270	08/27		G <b>V</b>
Naphthalene	0.230	Ü	mg/Kg	EPA 8270	08/27		G <b>V</b>
4-Chloroaniline			mg/Kg		08/27		G <b>V</b>
	0.230	U	mg/Kg	EPA 8270	08/27		G <b>V</b>
Hexachlorobutadiene	0.230	U	mg/Kg	EPA 8270	08/27		G <b>V</b>
4-Chloro-3-Methylphenol	0.230	U	mg/Kg	EPA 8270	08/27		
2-Methylnaphthalene	0.230	Ü	m <b>g/K</b> g	EPA 8270			G <b>V</b>
Hexachlorocyclopentadie	0.230	U	mg/Kg	EPA 8270	08/27		G <b>V</b>
2,4,6-Trichlorophenol	0.230	U	mg/Kg	EPA 8270	08/27		GV
2,4,5-Trichlorophenol	0.230	U	mg/Kg	EPA 8270	08/27		
2-Chloronaphthalene	0.230	U	m <b>g/K</b> g	EPA 8270	08/27	U9/28	
	•			· ·			_



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4178-4 5633 8 STREE Client Sample ID :BTR SD08 SD09 ANCHORAGE, AK 9951 Matrix TEL: (907) 562-23-:SOIL FAX: (907) 561-53C 2-Nitroaniline 0.230 U mg/Kg EPA 8270 Dimethylphthalate 08/27 09/28 0.230 11 mg/Kg EPA 8270 08/27 09/28 Acenaphthylene 0.230 U mg/Kg EPA 8270 08/27 09/28 2,6-Dinitrotoluene 0.230 U mg/Kg EPA 8270 3-Nitroaniline 08/27 09/28 0.230 U EPA 8270 mg/Kg 08/27 09/28 Acenaphthene 0.230 U mg/Kg **EPA** 8270 2.4-Dinitrophenol 08/27 09/28 0.230 U mg/Kg **EPA** 8270 4-Nitrophenol 08/27 09/28 0.230 U mg/Kg EPA 8270 Dibenzofuran 08/27 09/28 0.230 U mg/Kg EPA 8270 2,4-Dinitrotoluene 08/27 09/28 0.230 U mg/Kg EPA 8270 08/27 09/28 Diethylphthalate 0.230 11 mg/Kg EPA 8270 4-Chlorophenyl-Phenylet 08/27 09/28 0.230 H mg/Kg EPA 8270 Fluorene 08/27 09/28 ( 0.230 Ü mg/Kg EPA 8270 4-Nitroaniline 08/27 09/28 C 0.230 U EPA 8270 mg/Ka 4,6-Dinitro-2-Methylphe 08/27 09/28 C 0.230 U **EPA** 8270 mg/Kq n-Nitrosodiphenylamine 08/27 09/28 C 0.230 Ħ EPA 8270 mg/Kg 4-Bromophenyl-Phenyleth 08/27 09/28 C 0.230 11 mg/Kg EPA 8270 Hexachlorobenzene 08/27 09/28 G 0.230 U mg/Kg EPA 8270 Pentachlorophenol 08/27 09/28 G 0.230 11 mg/Kg EPA 8270 Phenanthrene 08/27 09/28 G 0.230 U mg/Kg EPA 8270 Anthracene 08/27 09/28 G 0.230 mg/Kg **EPA** 8270 di-n-Butylphthalate 08/27 09/28 G 0.230 mg/Kg EPA 8270 Fluoranthene 08/27 09/28 G 0.230 11 mg/Kg **EPA** 8270 08/27 09/28 Pyrene G. 0.230 11 mg/Kg **EPA** 8270 Butylbenzylphthalate 08/27 09/28 G, 0.230 U mg/Kg **EPA** 8270 3,3-Dichlorobenzidine 08/27 09/28 G. 0.230 Ü mg/Kg EPA 8270 Benzo(a)Anthracene 08/27 09/28 G 0.230 U mg/Ka EPA 8270 Chrysene 08/27 09/28 G1 0.230 U mg/Kg EPA 8270 bis(2-Ethylhexyl)Phthal 08/27 09/28 Œ 0.230 U mg/Ka EPA 8270 08/27 09/28 di-n-Octylphthalate G1 0.230 U ma/Ka EPA 8270 Benzo(b)Fluoranthene 08/27 09/28 G1 0.230 U mg/Kg **EPA** 8270 08/27 09/28 Benzo(k)Fluoranthene GI 0.230 U mg/Kg EPA 8270 Benzo(a)Pyrene 08/27 09/28 GL 0.230 U ma/Ka EPA 8270 Indeno(1,2,3-cd)Pyrene 08/27 09/28 GL 0.230 U mg/Kg EPA 8270 Dibenz(a,h)Anthracene 08/27 09/28 G٤ 0.230 U mg/Kg **EPA** 8270 Benzo(g,h,i)Perylene 08/27 09/28 GV 0.230 U mg/Ka EPA 8270 08/27 09/28 GV Sample Preparation EPA 3050 Digest Total Metals Analysis ICP Screen, ICF EPA Aluminum n/a 2500 mg/Kg EPA 6010 Antimony 08/24 08/25 DFL 57 Ü mg/Kg **EPA** 6010 Arsenic 08/24 08/25 DFL 5.7 U mg/Kg **EPA** 6010 Barium 08/24 08/25 DFL 44 mg/Kg **EPA** 6010 08/24 08/25 Beryllium DFL 2.8 mg/Ka EPA 6010 Cadmium 08/24 08/25 DFL 2.8 mg/Kg EPA 6010 Calcium 08/24 08/25 DFL 6900 mg/Ka EPA 6010 Chromium 08/24 08/25 DFL 4.0 EPA 6010 mg/Ka Cobalt 08/24 08/25 DFL 5.7 mq/Ka **EPA** 6010 08/24 08/25 Copper DFL 4.1 ma/Ka EPA 6010 Iron 08/24 08/25 DFL



8700

EPA 6010

08/24 08/25

DFL.

mg/Ka



ENVIRONMENTAL LABORATORY SERVICES

5 % C.E 9C4			REPO	ORT of AN	ALYSTS				
Chemlab Ref.# Client Sample ID Matrix	:93.4178-4 :BTR SD08 SD09 :SOIL					5633 B ST ANCHORAGE. AK 95348 TEL: (907) 562-2343 FAX: (907) 561-5301			
Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium		5.7 2300 160 5.7 6.1 370 5.7 2.8 65 0.28	U U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA EPA EPA EPA EPA EPA	6010 6010 6010 6010 6010 6010 6010 6010	08/24 08/24 08/24 08/24 08/24 08/24 08/24 08/24	08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/27 08/26 08/25	DFI DFI DFI DFI DFI DFI DFI DFI DFI DFI
Zinc		27		mg/Kg		6010	08/24		DFL
TOC, Soil		2900		p <b>pm</b>	PSEP F	Ref Lab			DFL

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. LT = Less Than

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

GT = Greater Than



See Special Instructions Above



:lient Name

'roject Name

)rdered By

'roject#

WSID

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Ab Ref.# :93.4197-1 lient Sample ID :BTR SD08 SW01

:RAY MORRIS

:DEW LINE

:BARTER

:UA

:WATER **Matrix** 

RUSH Order :69752

Report Completed :08/23/93

Collected :08/16/93 @ 15:36 hrs. Received :08/19/93 @ 18:45 hrs.

5633 B STREET ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

Technical Director: STEPHEN, C. EDE

Released By :

iample Remarks: SAMPLE COLLECTED BY: UA.

:ICF KAISER ENGINEERING

Parameter	Results (	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	Ü	mg/L	EPA 5030/8015m		08/20	08/20	KWM
Benzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Toluene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Ethylbenzene	0.0010	ប	mg/L	EPA 8020		08/20	08/20	KWM
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
o-Xylene	0.0010	Ü	mg/L	EPA 8020		08/20	08/20	KWM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	JBH

ee Special Instructions Above e Sample Remarks Above

Indetected, Reported value is the practical quantification limit.

= Secondary dilution.

UA = Unavailable NA = Not AnalyzedLT = Less Than GT = Greater Than



________________________



Client Name

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES



5633 B STREET

TEL: (907) 562-2343 FAX: (907) 561-5301

ANCHORAGE, AK 99518

REPORT of ANALYSIS

Chemlab Ref.# :93.4178-2 Client Sample ID :BTR SD08 SW01

Matrix :WATER

:ICF KAISER ENGINEERING

Ordered By :RAY MORRIS Project Name :DEW LINE Project# :BARTER

PWSID :UA WORK Order :69710

Report Completed :09/30/93

Collected :08/16/93 @ 15:36 hrs Received :08/19/93 @ 10:50 hrs

Technical Director: STEPHEN ,C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M., PETER J.M.G.

		QC			Allowable	Ext.	Anal	
Parameter	Results (	Qual	Units	Method	Limits	Date	Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromoform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
s <b>ec-</b> Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	M
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260			08/20	M
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWH
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloroform	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWH
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloroethane	0.0054		mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/20	08/20	KWH
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichloropropane	0.0010	ប	mg/L	EPA 8260		08/20	08/20	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20		KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20		KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	PHILL
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20		
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ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4178-2	REF	PORT of AN	ALYSIS	5622 B CTDEET
Client Sample ID :BTR SD08	CUA 1			5633 B STREET ANCHORAGE, AK 99518
Matrix :WATER	2M01			TEL: (907) 562-2343
. MAILR				FAX: (907) 561-5301
Methylene Chloride	0.0010 U	75 PG	FD1 0260	
Napthalene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
n-Propylbenzene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
Styrene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
1112-Tetrachloroethane	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
1122-Tetrachloroethane	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
Tetrachloroethene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
Toluene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
1,2,3-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
1,2,4-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KWI
1,1,1-Trichloroethane	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
1,1,2-Trichloroethane	0.0010 U	mg/L	EPA 8260	08/20 08/20 KWI
Trichloroethene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KWI
Trichlorofluoromethane	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
1,2,3-Trichloropropane	0.0010 U	mg/L	EPA 8260	08/20 08/20 KW
1,2,4-Trimethylbenzene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KWF
1,3,5-Trimethylbenzene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KWF
Vinyl Chloride	0.0010 U	mg/L	EPA 8260	08/20 08/20 KWF
p+m-Xylene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KWK
o-Xylene	0.0010 U	mg/L	EPA 8260	08/20 08/20 KWE
•	0.0010	mg/L	EPA 8260	08/20 08/20 KWM
Semivolatile Organics			EPA 8270	
Phenol	<b>0.010</b> U	mg/L	EPA 8270	00.400 00.400
bis(2-Chloroethyl)ether	<b>0.010</b> U	mg/L	EPA 8270	08/22 08/23 HTT
2-Chlorophenol	0.010 U	mg/L	EPA 8270	08/22 08/23 HTT
1,3-Dichlorobenzene	0.010 U	mg/L	EPA 8270	08/22 08/23 HTT
1,4-Dichlorobenzene	0.010 U	mg/L	EPA 8270	08/22 08/23 HTT
Benzyl Alcohol	<b>0.01</b> 0 U	mg/L	EPA 8270	08/22 08/23 HTT
1.2-Dichlorobenzene	0.010 U	mg/L	EPA 8270	08/22 08/23 HTT
2-Methylphenol	<b>0.010</b> U	mg/L	EPA 8270	08/22 08/23 HTT
bis(2-Chloroisopropyl)e	0.010 U	mg/L	EPA 8270	08/22 08/23 HTT
4-Methylphenol	0.010 U	mg/L	EPA 8270	08/22 08/23 HTT
n-Nitroso-di-n-Propylam	<b>0.010</b> U	mg/L	EPA 8270	08/22 08/23 MTT 08/22 08/23 MTT
Hexachloroethane	<b>0.010</b> ប	mg/L	EPA 8270	
Nitrobenzene	0.010 U	mg/L	EPA 8270	
Isophorone	0.010 U	mg/L	EPA 8270	
2-Nitrophenol	0.010 U	mg/L	EPA 8270	
2.4-Dimethylphenol	0 <b>.01</b> 0 U	mg/L	EPA 8270	08/22 08/23 MTT 08/22 08/23 MTT
Benzoic Acid	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
bis(2-Chloroethoxy)Meth	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
2.4-Dichlorophenol	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
1,2,4-Trichlorobenzene	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
Naphthalene	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
4-Chloroaniline	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
Hexachlorobutadiene	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
4-Chloro-3-Methylphenol	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
2-Methylnaphthalene	0.010 U	mg/L	EPA 8270	08/22 08/23 HTT
Hexachlorocyclopentadie	0. <b>01</b> 0 U	mg/L	EPA 8270	08/22 08/23 MTT
2,4,6-Trichlorophenol	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
2,4,5-Trichlorophenol 2-Chloronaphthalene	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
- currentellabilicusTelle	0.010 U	mg/L	EPA 8270	08/22 08/23 MTT
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ENVIRONMENTAL LABORATORY SERVICES



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Chemlab Ref. # :93.4178-2	NE.F	OKI OI AN	WEISIS		56 <b>33 8</b> S	TREET
Client Sample ID :BTR SD08	CUO1				ANCHORAGE, AN	
	PMOT				TEL: (907) 56	
Matrix :WATER					FAX: (907) 56	1.5301
, , , , , , , , , , , , , , , , , , , ,						
2-Nitroaniline	0.010 U	mg/L	EPA 8270		08/22 08/23	M۲
Dimethylphthalate	0.010 U	mg/L	EPA 8270		08/22 08/23	HT
Acenaphthylene	0.010 U	mg/L	EPA 8270			
2,6-Dinitrotoluene	0.010 U				08/22 08/23	MT
3-Nitroaniline		mg/L	EPA 8270		08/22 08/23	MT.
Acenaphthene	0.010 U	mg/L	EPA 8270		08/22 08/23	EM
	<b>0.010</b> U	mg/L	EPA 8270		08/22 08/23	rm.
2,4-Dinitrophenol	<b>0.010</b> U	mg/L	EPA 8270		08/22 08/23	MI
4-Nitrophenol	<b>0.010</b> U	mg/L	EPA 8270		08/22 08/23	TM
Dibenzofuran	<b>0.010</b> U	mg/L	EPA 8270		08/22 08/23	MT
2,4-Dinitrotoluene	0.010 U	mg/L	EPA 8270		08/22 08/23	MT
Diethylphthalate	0.010 U	mg/L	EPA 8270		08/22 08/23	MT
4-Chlorophenyl-Phenylet	0.010 U	mg/L	EPA 8270			
Fluorene	0.010 U	mg/L	EPA 8270		08/22 08/23	ΗT
4-Nitroaniline	0.010 U				08/22 08/23	MT
4,6-Dinitro-2-Methylphe		mg/L	EPA 8270		08/22 08/23	ΜT
a, o-binicio-z-nechylphe	0.010 U	mg/L	EPA 8270		08/22 08/23	MT
n-Nitrosodiphenylamine	0. <b>010</b> U	mg/L	EPA 8270		08/22 08/23	MT
4-Bromophenyl-Phenyleth	0 <b>.010</b> U	mg/L	EPA 8270		08/22 08/23	MT
Hexachlorobenzene	<b>0.010</b> U	mg/L	EPA 8270		08/22 08/23	MT
Pentachlorophenol	0.010 U	mg/L	EPA 8270		08/22 08/23	MT
Ph <b>e</b> nanthrene	<b>0.010</b> ប	mg/L	EPA 8270		08/22 08/23	MT
Anthracene	<b>0.010</b> ប	mg/L	EPA 8270		08/22 08/23	_MT
di-n-Butylphthalate	0.010 U	mg/L	EPA 8270			
Fluoranthene	0.010 U				08/22 08/23	T
Pyrene		mg/L	EPA 8270		08/22 08/23	
Butylbenzylphthalate	0.010 U	mg/L	EPA 8270		08/22 08/23	MT
2 2 Dishlambanidia	0.010 U	mg/L	EPA 8270		08/22 08/23	MT.
3,3-Dichlorobenzidine	<b>0.010</b> U	mg/L	EPA 8270		08/22 08/23	MT
Benzo(a)Anthracene	<b>0.010</b> U	mg/L	EPA 8270		08/22 08/23	MT
Chrysene	<b>0.010</b> U	mg/L	EPA 8270		08/22 08/23	MT.
bis(2-Ethylhexyl)Phthal	0 <b>.010</b> ປ	mg/L	EPA 8270		08/22 08/23	MT
di-n-Octylphthalate	0.010 U	mg/L	EPA 8270		08/22 08/23	MT
Benzo(b)Fluoranthene	0.010 U	mg/L	EPA 8270		08/22 08/23	MT
Benzo(k)Fluoranthene	0.010 U	mg/L	EPA 8270			
Benzo(a)Pyrene	0.010 U				08/22 08/23	MTT
Indeno(1,2,3-cd)Pyrene		mg/L	EPA 8270		08/22 08/23	MTI
	0.010 U	mg/L	EPA 8270		08/22 08/23	MTI
Dibenz(a,h)Anthracene	0.010 U	mg/L	EPA 8270		08/22 08/23	MII
Benzo(g,h,i)Perylene	0. <b>010</b> U	mg/L	EPA 8270		08/22 08/23	MTI
Maka 3						
Total Metals Analysis			_			
ICP Screen, ICF			EPA	n/a		
Aluminum	1.9 U	mg/L	EPA 6010	, -	08/23 08/24	DFL
Antimony	0.10 บ	mg/L	EPA 6010		08/23 08/24	DFL
Arsenic	0.10 U					
Barium	0.11	mg/L	EPA 6010		08/23 08/24	DFL
Beryllium		mg/L	EPA 6010		08/23 08/24	DFL
Cadmium	0.050 U	mg/L	EPA 6010		08/23 08/24	DFL
	0 <b>.050</b> U	mg/L	EPA 6010		08/23 08/24	DFL
Calcium	72	mg/L	EPA 6010		08/23 08/24	DFL
Chromium	<b>0.050</b> U	mg/L	EPA 6010		08/23 08/24	DFL
Cobalt	0.10 U	mg/L	EPA 6010		08/23 08/24	DFL
Copper	<b>0.050</b> U	mg/L	EPA 6010		08/23 08/24	DFL
Iron	4.2	mg/L	EPA 6010		08/23 08/24	TL
Lead	0.10 U	mg/L	EPA 6010		08/23 08/24	E L
			M		00/23 00/24	_
			•			





ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.	4178-2	REP	ORT of AN	ALYSIS			5633 8 S	TREE
Client Sample ID :BTR	SD08 SW01						DRAGE, AK EL: (907) 56	9951
Matrix :WAT							X: (907) 56	
Magnesium	31		ma /f	<b>573.</b> 6010				
Manganese	0.17		mg/L mg/L	EPA 6010 EPA 6010		08/23	08/24	D:
Molybdenum	0.050	U	mg/L	EPA 6010		08/23	08/24	DI
Nickel	0.050	Ü	mg/L	EPA 6010		08/23		DE
Potassium	5.0	Ü	mg/L	EPA 6010		08/23	08/24	DF
Selenium	0.10	Ü	mg/L	EPA 6010		08/23	08/24	DE
Silver	0.050	ü	mg/L	EPA 6010		08/23	08/24	DE
Sodium	120	•	ng/L	EPA 6010		08/23	08/24	DF
Thallium	0.005	ប	mg/L	EPA 7841		08/23	08/24	DF
Vanadium	0.050	Ū	mg/L	EPA 6010		08/23	08/26	K.
Zinc	0.050	Ü	mg/L	EPA 6010		08/23 ( 08/23 (	08/24 08/24	DF DF
Dissolved Metals Ana	alvs							J.
ICP Screen, ICF				EPA	- 1-			
Aluminum	0.10	U	mg/L	EPA 6010	n/a	00 (22 )		
Antimony	0.10	Ü	mg/L	EPA 6010		08/23 (	JB/24	DF
Arsenic	0.10	Ü	mg/L	EPA 6010		08/23 (	J8/24	DF
Barium	0.082	_	mg/L	EPA 6010		08/23 ( 08/23 (	JB/24	DF
Beryllium	0.050	U	mg/L	EPA 6010		08/23 (		DF
Cadmium	0.050	U	mg/L	EPA 6010		08/23 (	10/24	DF.
Calcium	71		mg/L	EPA 6010		08/23 0	10/24 18/24	DF1
Chromium	0.050	U	mg/L	EPA 6010		08/23 0	18/24	DF!
Cobalt	0.10	U	mg/L	EPA 6010		08/23 0	18/24	DET
Copper Iron	0.050	U	mg/L	EPA 6010		08/23 0		DET
Lead	0.10	U	mg/L	EPA 6010		08/23 0	8/24	DFT
Magnesium	0.10	U	mg/L	EPA 6010		08/23 0	8/24	DFT
Manganese	30		mg/L	EPA 6010		08/23 0	18/24	DFT
Molybdenum	0.10		mg/L	EPA 6010		08/23 0		
Nickel	0.050	Ü	mg/L	EPA 6010		08/23 0		DEI
Potassium	0 <b>.0</b> 50 5.0	Ü	mg/L	EPA 6010		08/23 0	8/24	DFI
Selenium	0.10	Ü	mg/L	EPA 6010		08/23 0	8/24	DFI
Silver	0.050	U U	mg/L	EPA 6010		08/23 0		DFI
Sodium	96	U	mg/L	EPA 6010		08/23 0		DFT
Thallium	0.005	U	mg/L	EPA 6010		08/23 0		DFT.
Vanadium	0.050	Ü	mg/L	EPA 7841		08/23 0		KAF
Zinc	0.050		mg/L mg/L	EPA 6010 EPA 6010		08/23 0: 08/23 0:		DFL
TOC, Nonpurgable			<b>-</b>			00/23 0	U/ 24	DFL
TOC Range	14 4 15 0		10	EPA 9060	n/a			
TOC Concentration	14.4-15.8		mg/L	EPA 9060			8/31	CMR
	2000		mg/L	EPA 9060		01	8/31	CMR
Residue, Non-Filtera	ble 57		mg/L	EPA 160.2		08/24 08	8/2/	מפט
Residue, Filterable (T	DS) 662		mg/L	EPA 160.1	500	08/29 08		GPP RJK
			<b>-</b>		200	00,20 00	J/ ZJ	707

See Special Instructions Above See Sample Remarks Above

o = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

hemlab Ref.# :93.4197-2 lient Sample ID :BTR SD08 SW02

atrix

:WATER

:RAY MORRIS

:69752 RUSH Order :ICF KAISER ENGINEERING :08/23/93 Report Completed

:08/16/93 @ 16:29 hrs. Collected :08/19/93 @ 18:45 hrs. Received

5633 B STREET ANCHORAGE. AK 99518

TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN C. EDE

Released By : Man C. 2

lient Name rdered By roject Name

:DEW LINE 'roject# :BARTER

WSID :UA

ample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/20	08/20	KWM
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.0010 0.0010 0.0010 0.0010 0.0010	บ บ บ บ	mg/L mg/L mg/L mg/L mg/L	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20	08/20 08/20 08/20 08/20 08/20	KMM KMM KMM KMM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M	I	08/21	08/21	JBH.

See Special Instructions Above

See Sample Remarks Above

J = Undetected, Reported value is the practical quantification limit.

) = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

ab Ref.# :93.4197-3 lient Sample ID :BTR SD08 SW03

atrix :WATER

**5633 B STREET** ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

lient Name rdered By

:ICF KAISER ENGINEERING

:RAY MORRIS

roject Name roject# WSID

:DEW LINE :BARTER :UA

RUSH Order :69752

Report Completed :08/23/93

Collected Received

:08/16/93 **@ 16:48** :08/19/93 @ 18:45 hrs.

Technical Director: STEPHEN_C. EDE

Released By : State

ample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX Hydrocarbons VPH	0.020	ช	mg/L	EPA 8015M/8020 EPA 5030/8015m	<u> </u>	08/20	08/20	KWM
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.020 0.020 0.020	บ บ บ บ	mg/L mg/L mg/L mg/L	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20	08/20 08/20 08/20 08/20 08/20	KWH KWH KWH KWH KWH
Hydrocarbons EPH	0.200	ប	mg/L	3510/3550/8100M		08/21	08/21	JBH

See Special Instructions Above

e Sample Remarks Above

detected, Reported value is the practical quantification limit. = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than



lient Name

#### COMMERCIAL TESTING & ENGINEERING CO.

**ENVIRONMENTAL LABORATORY SERVICES** 

:ICF KAISER ENGINEERING

REPORT of ANALYSIS

hemlab Ref.# :93.4197-4 lient Sample ID :BTR SDO8 SWO4

atrix :WATER

trix :WAIE

rdered By :RAY MORRIS
roject Name :DEW LINE
roject# :BARTER

WSID :UA

RUSH Order :69752

Report Completed :08/23/93

Collected :08/16/93 @ 17:46 hrs. Received :08/19/93 @ 18:45 hrs.

5633 B STREET

ANCHORAGE. AK 99518

TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN C. EDE

Released By : Stolen 2

ample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	Qual QC	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.020	U	mg/L	EPA 5030/8015m		08/20	08/20	KWM
Benzene	0.0010	บ	mg/L	EPA 8020			08/20	KWM
Toluene	0.0010	ប	mg/L	EPA 8020		08/20	08/20	KWM
Ethylbenzene	0.0010	บ	mg/L	EPA 8020		08/20	08/20	KWM
p&m Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
o-Xylene	0.0010	U	mg/L	EPA 8020		08/20	08/20	KWM
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M		08/21	08/21	JBH

See Special Instructions Above

See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit.

= Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-1 Client Sample ID :BTR SD08 SW04

Matrix

:WATER

:ICF KAISER ENGINEERING

WORK Order :69705

Report Completed :09/20/93

Collected @ 17:46 h :08/16/93 Received :08/19/93 @ 10:50 h

5633 B STREE ANCHORAGE, AK 9951

TEL: (907) 562-234

FAX: (907) 561-530

Technical Director: STEPHEN £. EDE

Released By :

Client Name Ordered By

Project Name

:RAY MORRIS :DEW LINE :BARTER

Project# PWSID :UA

Sample Remarks: SAMPLE COLLECTED BY: PETE, JERRY M., AND M. LEMMON.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In:
 Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		00/20	00/20	127
Bromobenzene	0.0010	Ü	mg/L	EPA 8260			08/20 08/20	K
Bromochloromethane	0.0010	Ü	mg/L	EPA 8260				K/
Bromodichloromethane	0.0010	บ	mg/L	EPA 8260			08/20	Kī
Bromoform	0.0010	Ü	mg/L	EPA 8260			08/20 08/20	KI KI
Bromomethane	0.0010	Ü	mg/L	EPA 8260			08/20	K)
n-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			08/20	KI.
sec-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			08/20	KV KV
tert-Butylbenzne	0.0010	Ŭ	mg/L	EPA 8260			08/20	K¥
Carbon Tetrachloride	0.0010	Ü	mg/L	EPA 8260			08/20	KI.
Chlorobenzene	0.0010	ŭ	mg/L	EPA 8260			08/20	K¥
Chloroethane	0.0010	Ü	mg/L	EPA 8260			08/20	K¥
Chloroform	0.0010	Ü	mg/L	EPA 8260			08/20	KV
Chloromethane	0.0010	Ū	mg/L	EPA 8260			08/20	KV
2-Chlorotoluene	0.0010	บั	mg/L	EPA 8260			08/20	K¥
4-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260			08/20	KV
Dibromochloromethane	0.0010	Ū	mg/L	EPA 8260			08/20	Κŀ
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260			08/20	K
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260			08/20	K¥
Dibromomethane	0.0010	ប	mg/L	EPA 8260			08/20	KV
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			08/20	KW
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			08/20	KW
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			08/20	KW
Dichlorodifluoromethane	0.0010	ប	mg/L	EPA 8260			08/20	KW
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260			08/20	KW
1,2-Dichloroethane	0.0053		mg/L	EPA 8260			08/20	KW
1,1-Dichloroethene	0.0010	Ü	mg/L	EPA 8260			08/20	KW
cis-1,2-Dichloroethene	0.0014		mg/L	EPA 8260			08/20	KW
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20		KW
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260			08/20	KW
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260			08/20	KW
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260			08/20	KW
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260			08/20	KW
Ethylbenzene	0.0010	U	mg/L	EPA 8260			08/20	KW
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260			08/20	KW
Isopropylbenzene	0.0010	U	mg/L	EPA 8260			08/20	KW
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KW



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-1 Client Sample ID :BTR SD08 SW04

Matrix :WATER 5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2340 FAX: (907) 561-5301

	***************************************						(, -	
	Methylene Chloride	0.0010	U	mg/L	EPA 8260	00.400	00 (00	
	Napthalene	0.0010	Ü	mg/L			08/20	K
	n-Propylbenzene	0.0010	ŭ		EPA 8260		08/20	K¥
	Styrene	0.0010		mg/L	EPA 8260		08/20	KV
	1112-Tetrachloroethane		Ü	mg/L	EPA 8260	08/20	08/20	KV.
	1172 Totachloroethan	0.0010	U	mg/L	EPA 8260	08/20	08/20	KV.
	1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KF
	Tetrachloroethene	0.0010	U	mg/L	EPA 8260	08/20		KW
	Toluene	0.0010	U	mg/L	EPA 8260	08/20		KW
	1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20		KW
	1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/20		KW
	1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20		KW
	1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/20		KW
	Trichloroethene	0.0010	U	mg/L	EPA 8260	08/20		KW
	Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/20		
	1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20		KW
	1,2,4-Trimethylbenzene	0.0010	Ü	mg/L	EPA 8260			KW
	1,3,5-Trimethylbenzene	0.0010	Ū	mg/L	EPA 8260	08/20		KW
	Vinyl Chloride	0.0010	Ü	mg/L		08/20		KW
	p+m-Xylene	0.0010	Ü	mg/L	EPA 8260	08/20		KW
	o-Xylene	0.0010	Ü	mg/L	EPA 8260	08/20		KW
		0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
	Semivolatile Organics				EDN 0270			_
	Phenol	0.010	U	mg/L	EPA 8270	00.404	00 (00	
	ois(2-Chloroethyl)ether	0.010	Ü		EPA 8270	08/21		
•	2-Chlorophenol	0.010	Ü	mg/L	EPA 8270	08/21		MT
	1,3-Dichlorobenzene	0.010	Ü	mg/L	EPA 8270	08/21	•	MT
	1,4-Dichlorobenzene	0.010		mg/L	EPA 8270	08/21		MT
	Benzyl Alcohol		U	mg/L	EPA 8270	08/21		MT
	1,2-Dichlorobenzene	0.010	Ü	mg/L	EPA 8270	08/21		MT
	2-Methylphenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
		0.010	U	mg/L	EPA 8270	08/21	08/23	MT
	ois(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
	4-Methylphenol	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
1	n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
	lexachloroethane	0.010	U	mg/L	EPA 8270	08/21	08/23	MT
	Nitrobenzene	0.010	U	mg/L	EPA 8270	08/21		MT
	sophorone	0.010	U	mg/L	EPA 8270	08/21		MT
	2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/21		MT
	2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/21		MT
	Benzoic Acid	0.010	U	mg/L	EPA 8270	08/21		MT
Į	ois(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270	08/21		MT
	2,4-Dichlorophenol	0.010	U	mg/L	EPA 8270	08/21		MT
	,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	. 08/21		MT.
	laphthalene	0.010	Ü	mg/L	EPA 8270	08/21		MT
	-Chloroaniline	0.010	U	mg/L	EPA 8270	08/21		
	lexachlorobutadiene	0.010	Ū	mg/L	EPA 8270	08/21 (		MT"
4	-Chloro-3-Methylphenol	0.010	Ũ	mg/L	EPA 8270	08/21 (		MT
2	-Methylnaphthalene	0.010	Ü	mg/L	EPA 8270	08/21 (		MT
	exachlorocyclopentadie	0.010	Ü	mg/L	EPA 8270	08/21 (		MTT
	,4,6-Trichlorophenol	0.010	Ü	mg/L	EPA 8270			MT
2	,4,5-Trichlorophenol	0.010	Ü	mg/L	EPA 8270	08/21 (		TTM
	-Chloronaphthalene	0.010	Ü	mg/L	EPA 8270	08/21 (		
	<del>-</del>		_		MA 0270	08/21 (	10/23	1



ENVIRONMENTAL LABORATORY SERVICES

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		PFP	ORT of ANA	I VCTC			
Chemlab Ref.# :93.4175-1		سنانا	OKT OT ANA	m1212			STREET
Client Sample ID :BTR SD08 S	EWO A					ANCHORAGE, A	
Matrix :WATER	5 <b>W</b> U-1					TEL: (907) ! FAX: (907) !	
INCLIA .WAILA						(557)	
2-Nitroaniline	0.010						
	0.010	U	mg/L	EPA 8270		08/21 08/23	
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/21 08/23	MT.
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/21 08/23	M?
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/21 08/23	H?
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/21 08/23	
Acenaphthene	0.010	U	mg/L	EPA 8270		08/21 08/23	
2,4-Dinitrophenol	0.010	U	mg/L	EPA 8270		08/21 08/23	
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/21 08/23	
Dibenzofuran	0.010	Ū	mg/L	EPA 8270		08/21 08/23	
2,4-Dinitrotoluene	0.010	Ü	mg/L	EPA 8270			
Diethylphthalate	0.010	Ü				08/21 08/23	
4-Chlorophenyl-Phenylet		_	mg/L	EPA 8270		08/21 08/23	
Fluorene	0.010	Ü	mg/L	EPA 8270		08/21 08/23	
	0.010	U	mg/L	EPA 8270		08/21 08/23	
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/21 08/23	
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/21 08/23	ГM
n-Nitrosodiphenylamine	0.010	U	mg/L	EPA 8270		08/21 08/23	TM
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/21 08/23	TM
Hexachlorobenzene	0.010	U	mg/L	EPA 8270		08/21 08/23	
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/21 08/23	
Phenanthrene	0.010	U	mg/L	EPA 8270		08/21 08/23	
Anthracene	0.010	U	mg/L	EPA 8270		08/21 08/23	
di-n-Butylphthalate	0.010	Ü	mg/L	EPA 8270		08/21 08/23	
Fluoranthene	0.010	Ü	mg/L	EPA 8270			
Pyrene	0.010	Ü				08/21 08/23	
Butylbenzylphthalate			mg/L	EPA 8270		08/21 08/23	
	0.010	U	mg/L	EPA 8270		08/21 08/23	
3,3-Dichlorobenzidine	0.010	U	mg/L	EPA 8270		08/21 08/23	
Benzo(a)Anthracene	0.010	U	mg/L	EPA 8270		08/21 08/23	
Chrysene	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/21 08/23	MT
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/21 08/23	
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/21 08/23	
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/21 08/23	
Indeno(1,2,3-cd)Pyrene	0.010	Ū	mg/L	EPA 8270	,	08/21 08/23	
Dibenz(a,h)Anthracene	0.010	Ü	mg/L	EPA 8270		08/21 08/23	
Benzo(g,h,i)Perylene	0.010	Ü	mg/L	EPA 8270		08/21 08/23	MT
201120 (3/11/17/101/120116	0.010	0	mg/ L	ECH 02/0		00/21 00/23	LI I
Total Metals Analysis							
ICP Screen, ICF				CD3	- /-		
Aluminum	0.10	* *	/T	EPA CA1A	n/a	00 (00 00 (04	
Antimony		Ü	mg/L	EPA 6010		08/23 08/24	
	0.10	U	mg/L	EPA 6010		08/23 08/24	
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24	
Barium	0.083		mg/L	EPA 6010		08/23 08/24	
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	
Calcium	63		mg/L	EPA 6010		08/23 08/24	
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24	
Cobalt	0.10	Ū	mg/L	EPA 6010		08/23 08/24	
Copper	0.050	Ü	mg/L	EPA 6010		08/23 08/24	
Iron	2.2	-	mg/L	EPA 6010		08/23 08/24	
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DFT
	0.10	9	mg/ L	ELW OUTO		00/23 00/24	ו זכו



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# 5633 B STREET :93.4175-1 ANCHORAGE, AK 9951 Client Sample ID :BTR SD08 SW04 TEL: (907) 562-234. Matrix :WATER FAX: (907) 561-530 Magnesium 27 mq/L EPA 6010 08/23 08/24 DI Manganese 0.15 mq/L EPA 6010 08/23 08/24 Dŧ Molybdenum 0.050 U mg/L EPA 6010 08/23 08/24 DE Nickel 0.050 U mg/L EPA 6010 08/23 08/24 DF Potassium 5.0 U mq/L **EPA** 6010 08/23 08/24 DF Selenium 0.10 U mg/L EPA 6010 08/23 08/24 DE Silver 0.050 U mg/L **EPA** 6010 08/23 08/24 DE Sodium 98 mg/L EPA 6010 08/23 08/24 DE Thallium 0.0050 U mg/L EPA 7841 08/23 08/26 KA Vanadium 0.050 U EPA 6010 mq/L 08/23 08/24 DF Zinc 0.050 U mq/L EPA 6010 08/23 08/24 DF Dissolved Metals Analys ICP Screen, ICF EPA n/a Aluminum 0.10 U mq/L **EPA** 6010 08/23 08/24 DF Antimony 0.10 U mg/L EPA 6010 08/23 08/24 DE Arsenic 0.10 U mg/L **EPA** 6010 08/23 08/24 DF Barium 0.079 mg/L **EPA** 6010 08/23 08/24 DF Beryllium 0.050 11 mg/L **EPA** 6010 08/23 08/24 DF Cadmium 0.050 U mg/L **EPA** 6010 08/23 08/24 DF Calcium 65 mg/L **EPA** 6010 08/23 08/24 DF Chromium 0.050 U mg/L **EPA** 6010 08/23 08/24 DF Cobalt 0.10 mg/L **EPA** 6010 08/23 08/24 Copper 0.050 U mg/L **EPA** 6010 08/23 08/24 DF Iron 0.18 mg/L **EPA** 6010 08/23 08/24 DF Lead 0.10 U mq/L **EPA** 6010 08/23 08/24 DF: Magnesium 27 **EPA** 6010 mg/L 08/23 08/24 DF Manganese 0.13 mg/L **EPA** 6010 08/23 08/24 DF Molybdenum 0.050 U mg/L **EPA** 6010 08/23 08/24 DF Nickel 0.050 U mg/L **EPA** 6010 08/23 08/24 DF. Potassium 5.0 U mg/L **EPA** 6010 08/23 08/24 DF: Selenium 0.10 U mq/L **EPA** 6010 08/23 08/24 DF: Silver 0.050 U mq/L **EPA 6010** 08/23 08/24 DF: Sodium 91 mq/L EPA 6010 08/23 08/24 DF: Thallium 0.0050 U mq/L EPA 7841 08/23 08/26 KA! Vanadium 0.050 U mq/L **EPA** 6010 08/23 08/24 DFI Zinc 0.050 U mg/L EPA 6010 08/23 08/24 DFI TOC, Nonpurgable EPA 9060 n/a ...TOC Range 9.70-19.5 mg/L **EPA** 9060 08/31 CMI ...TOC Concentration 13.0 mq/L EPA 9060 08/31 CMI Residue, Non-Filterable 6.0 mg/L EPA 160.2 08/24 08/24 **GPF** Residue, Filterable (TDS) 610 mg/L EPA 160.1 08/20 08/23 500 RJI

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

b Ref.# :93.4197-5 lient Sample ID :BTR SD08 SW08

latrix :WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

lient Name rdered By

:ICF KAISER ENGINEERING

:RAY MORRIS

:DEW LINE roject Name 'roject# :BARTER WSID :UA

RUSH Order :69752 Report Completed :08/23/93

Collected :08/16/93 @ 17:46 hrs. Received :08/19/93 @ 18:45 hrs.

Technical Director: STEPHEN C EDE

Released By :

ample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	<b>Resul</b> ts	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
VPH & BTEX Hydrocarbons VPH	0.020	บ	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/20	08/20	KWM
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.0010 0.0010 0.0010 0.0010 0.0010	U U U U	mg/L mg/L mg/L mg/L mg/L	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20	08/20 08/20 08/20 08/20 08/20	KWM KWM KWM
Hydrocarbons EPH	0.200	บ	mg/L	3510/3550/8100M		-	08/21	JBH

See Special Instructions Above

Lee Sample Remarks Above

detected, Reported value is the practical quantification limit.

= Secondary dilution.

UA = Unavailable

NA = Not AnalyzedLT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR SD08 SW08

:93.4173-1

Matrix

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project* **PWSID** 

:BARTER :UA

WORK Order

:69700

Report Completed Collected

:09/17/93 :08/16/93 @ 17:46 hr:

Received :08/19/93 @ 10:50 hr: Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Inii
'	Volatile Organics				EPA 8260				
	Benzene	0.0010	ប	mq/L	EPA 8260		00 /00	00 (00	
E	Bromobenzene	0.0010	Ŭ	mg/L	EPA 8260		08/20	08/20	KW
E	Bromochloromethane	0.0010	ü	mg/L	EPA 8260			08/20	KW
	Bromodichloromethane	0.0010	Ü	mg/L	EPA 8260			08/20	KWI
	Bromoform	0.0010	Ü	mg/L	EPA 8260			08/20	KW
E	Bromomethane	0.0010	ŭ	mg/L	EPA 8260			08/20	KWI
n	n-Butylbenzene	0.0010	บั	mg/L	EPA 8260			08/20	KWI
	sec-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			08/20	KWP
	ert-Butylbenzne	0.0010	Ü	ng/L	EPA 8260			08/20	
	Carbon Tetrachloride	0.0010	บั	mg/L	EPA 8260			08/20	
	hlorobenzene	0.0010	บั	mg/L	EPA 8260			08/20	KWM
C	hloroethane	0.0010	ŭ	mg/L	EPA 8260			08/20	KWM
	hloroform	0.0010	ŭ	mg/L	EPA 8260			08/20	KWE
	hloromethane	0.0010	Ü	mg/L				08/20	KWM
	-Chlorotoluene	0.0010	บั		EPA 8260			08/20	KWM
	-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260			08/20	KWM
	ibromochloromethane	0.0010	Ü	mg/L	EPA 8260			08/20	KWM
1	2Dibromo3Chloropropane	0.0010	บ	mg/L mg/L	EPA 8260			08/20	KWM
1	,2-Dibromoethane	0.0010	บ		EPA 8260		08/20		KWM
	ibromomethane	0.0010	Ü	mg/L mg/L	EPA 8260		08/20		KWM
	,2-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
1	,3-Dichlorobenzene	0.0010	บ	mg/L	EPA 8260		08/20		KWM
1	,4-Dichlorobenzene	0.0010	บ	mg/L	EPA 8260		08/20		KWM
D	ichlorodifluoromethane	0.0010	บ	mg/L	EPA 8260		08/20		KWM
	,1-Dichloroethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	,2-Dichloroethane	0.0044	J	mg/L	EPA 8260 EPA 8260		08/20		KWM
	,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	is-1,2-Dichloroethene	0.0015	J	mg/L	EPA 8260		08/20		KWM
	rans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	,2-Dichloropropane	0.0010	Ŭ	mg/L	EPA 8260		08/20		KWM
	,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
2	,2-Dichloropropane	0.0010	บั	mg/L	EPA 8260		08/20	08/20	KWM
1	,1-Dichloropropene	0.0010	บั	mg/L	EPA 8260		08/20		KWM
E	thylbenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	exachlorobutadiene	0.0010	Ŭ	mg/L	EPA 8260		08/20		KWM
	sopropylbenzene	0.0010	ŭ	mg/L	EPA 8260		08/20		KWM
	-Isopropyltoluene	0.0010	Ü	mg/L	EPA 8260		08/20		
-	- • •	3.0010	•	my/L	EFA 0260		08/20	UB/20	T.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-1 Client Sample ID :BTR SD08 SW08

Matrix :WATER 5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

:WAIER				FAX: (907) 5	61-5301
Methylene Chloride	0.0010	_			
Napthalene		J nog/L	EPA 8260	08/20 08/20	LZT.Th
n-Propylbenzene	0.0010 (	J mg/L	EPA 8260	00/20 00/20	KWI
Styrene	0.0010 t	J mag/L	EPA 8260	08/20 08/20	KW
1112 makes sky	0.0010 t		EPA 8260	08/20 08/20	KWI
1112-Tetrachloroethane	0.0010 լ		EPA 8260	08/20 08/20	KWI
1122-Tetrachloroethane	0.0010 t		EPA 8260	08/20 08/20	KWI
Tetrachloroethene	0.0010 t		EPA 8260	08/20 08/20	KWI
Toluene	0.0010			08/20 08/20	KWI
1,2,3-Trichlorobenzene	0.0010		EPA 8260	08/20 08/20	KWI
1,2,4-Trichlorobenzene	0.0010		EPA 8260	08/20 08/20	KWI
1,1,1-Trichloroethane	0.0010		EPA 8260	08/20 08/20	KWI
1,1,2-Trichloroethane	0.0010 U	3/	EPA 8260	08/20 08/20	KWI
Trichloroethene		9/ @	EPA 8260	08/20 08/20	KWP
Trichlorofluoromethane			EPA 8260	08/20 08/20	KWI
1,2,3-Trichloropropane	0.0010 U 0.0010 U		EPA 8260	08/20 08/20	KWP
1,2,4-Trimethylbenzene			EPA 8260	08/20 08/20	KWP
1,3,5-Trimethylbenzene	0.0010 U	3, <b></b> -	EPA 8260	08/20 08/20	KW
Vinyl Chloride	0.0010 U		EPA 8260	08/20 08/20	KWE
P+m-Xylene	0.0010 U	~3, ~	EPA 8260	08/20 08/20	KWK
o-Xylene	0.0010 U	· 5/ L	EPA 8260	08/20 08/20	KWK
7 20110	0.0010 U	mg/L	EPA 8260	08/20 08/20	KWE
Semivolatile Organics				03/20 03/20	KWE
Phenol	^ ^1		EPA 8270		
bis(2-Chloroethyl)ether	0.01 U	3/	EPA 8270	08/21 08/23	MIT
2-Chlorophenol	0.01 U	g/ &	EPA 8270	08/21 08/23	MTT
1,3-Dichlorobenzene	0.01 U	9/ L	EPA 8270	08/21 08/23	MTT
1,4-Dichlorobenzene	0.01 U		EPA 8270	08/21 08/23	MTT
Benzyl Alcohol	0.01 U	-5/ -	EPA 8270	08/21 08/23	MTT
1,2-Dichlorobenzene	0.01 U		EPA 8270	08/21 08/23	MTT
2-Methylphenol	0.01 U	····9/ L	EPA 8270	08/21 08/23	MTT
bis(2-Chloroisopropyl)e	0.01 U	mg/L	EPA 8270	08/21 08/23	MIT
4-Methylphenol	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
n-Nitroso-di-n-Propylam	0.01 U	mg/L	EPA 8270	08/21 08/23	
Hexachloroethane	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
Nitrobenzene	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
Isophorone	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
2-Nitrophenol	0.01 U	mg/L	EPA 8270		MTT
2 A-Dimothul-hand	0.01 บ	mg/L	EPA 8270	08/21 08/23	MIT
2,4-Dimethylphenol Benzoic Acid	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
bis/2 Chloratt	0.01 U	mg/L	EPA 8270	08/21 08/23	MIT
bis(2-Chloroethoxy)Meth	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
2,4-Dichlorophenol	0.01 ប	mg/L	EPA 8270	08/21 08/23	MTT
1,2,4-Trichlorobenzene	0.01 ປ	mg/L	EPA 8270	08/21 08/23	MTT
Naphthalene	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
4-Chloroaniline	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
Hexachlorobutadiene	0.01 U	mg/L		08/21 08/23	MTT
4-Chloro-3-Methylphenol	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
2-Methylnaphthalene	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
Hexachlorocyclopentadie	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
2,4,6-Trichlorophenol	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
2,4,5-Trichlorophenol	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
-Chloronaphthalene	0.01 U	mg/L	EPA 8270	08/21 08/23	MTT
		117g/ L	EPA 8270	08/21 08/23	MTT



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS	REP	ORT	of	ANA	Y. I	SIS
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Chemlab Ref.# :93.4173-1 Client Sample ID :BTR SD08 SW08

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

Client Sample ID :BTR SD08 Matrix :WATER	SW08						EL: (907) 5 AX: (907) 5	
	0.01	••	-					
2-Nitroaniline	0.01	Ü	mg/L	EPA 8270			08/23	MT
Dimethylphthalate	0.01	U	mg/L	EPA 8270			08/23	MT
Acenaphthylene	0.01	U	mg/L	EPA 8270			08/23	MT
2,6-Dinitrotoluene	0.01	U	ing/L	EPA 8270			08/23	MTI
3-Nitroaniline Acenaphthene	0.01 0.01	U	mg/L	EPA 8270			08/23	MTI
2,4-Dinitrophenol	0.01	U	mg/L	EPA 8270			08/23	MTI
4-Nitrophenol	0.01	U U	mg/L	EPA 8270			08/23	HT
Dibenzofuran	0.01	Ü	mg/L	EPA 8270			08/23	MTI
2,4-Dinitrotoluene	0.01	Ü	mg/L mg/L	EPA 8270 EPA 8270		•	08/23	MTT
Diethylphthalate	0.01	บ	_				08/23	MIT
4-Chlorophenyl-Phenylet	0.01	Ü	mg/L	EPA 8270			08/23	MIT
Fluorene	0.01	Ü	mg/L	EPA 8270			08/23	MTI
4-Nitroaniline	0.01	Ü	mg/L	EPA 8270			08/23	MTI
4,6-Dinitro-2-Methylphe	0.01	Ü	mg/L	EPA 8270			08/23	HTT
n-Nitrosodiphenylamine	0.01	Ü	mg/L	EPA 8270			08/23	MIT
4-Bromophenyl-Phenyleth	0.01	Ü	mg/L mg/L	EPA 8270			08/23	MIT
Hexachlorobenzene	0.01	Ü	mg/L	EPA 8270 EPA 8270			08/23 08/23	MTT
Pentachlorophenol	0.01	บ	mg/L	EPA 8270			08/23	MTT MTT
Phenanthrene	0.01	Ü	mg/L	EPA 8270			08/23	MTT
Anthracene	0.01	Ü	mg/L	EPA 8270			08/23	MTT
di-n-Butylphthalate	0.01	ŭ	mg/L	EPA 8270			08/23	MIT
Fluoranthene	0.01	Ū	mg/L	EPA 8270			08/23	T
Pyrene	0.01	U	mg/L	EPA 8270			08/23	TILL
Butylbenzylphthalate	0.01	U	mg/L	EPA 8270		08/21		MIT
3,3-Dichlorobenzidine	0.01	U	mg/L	EPA 8270		08/21		MTT
Benzo(a)Anthracene	0.01	U	mg/L	EPA 8270		08/21		MTT
Chrysene	0.01	U	mg/L	EPA 8270		08/21	08/23	MTT
bis(2-Ethylhexyl)Phthal	0.01	U	ng/L	EPA 8270		08/21	08/23	MTT
di-n-Octylphthalate	0.01	U	mg/L	EPA 8270		08/21	08/23	MTT
Benzo(b)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21	08/23	MTT
Benzo(k)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21		HTT
Benzo(a)Pyrene	0.01	U	mg/L	EPA 8270		08/21		MTT
Indeno(1,2,3-cd)Pyrene	0.01	U	mg/L	EPA 8270		08/21		MTT
Dibenz(a,h)Anthracene	0.01	U	mg/L	EPA 8270		08/21	-	MTT
Benzo(g,h,i)Perylene	0.01	U	mg/L	EPA 8270		08/21	08/23	MTT
Total Metals Analysis								
ICP Screen, ICF				EPA	n/a			
Aluminum	0.10	U	mg/L	EPA 6010	11/4	08/23	08/24	DFL
Antimony	0.10	Ū	mg/L	EPA 6010		08/23		DFL
Arsenic	0.10	Ū	mg/L	EPA 6010		08/23		DFL
Barium	0.086		mg/L	EPA 6010		08/23		DFL
Beryllium	0.050	U	mg/L	EPA 6010		08/23		DFL
Cadmium	0.050	U	mg/L	EPA 6010		08/23		DFL
Calcium	63		mg/L	EPA 6010		08/23	08/24	DFL
Chromium	0.050	U	mg/L	EPA 6010		08/23		DFL
Cobalt	0.10	U	mg/L	EPA 6010		08/23		DFL
Copper	0.050	U	mg/L	EPA 6010		08/23		DFL
Iron	2.4		mg/L	EPA 6010		08/23		PFL
Lead	0.10	U	mg/L	EPA 6010		08/23	08/24	

ENVIRONMENTAL LABORATORY SERVICES

t 4.4		REP	ORT of ANA	LYSIS			
Chemlab Ref.# :93.4173	-1					5633 B S	STREET
Client Sample ID :BTR SD0	8 SW08					ANCHORAGE. A TEL: (907) 5	K 99518 62-2343
Matrix :WATER						FAX: (907) 5	
Magnesium	27		/T				
Manganese	0.15		mg/L	EPA 6010		08/23 08/24	
Molybdenum	0.050		mg/L	EPA 6010		08/23 08/24	
Nickel		Ü	mg/L	EPA 6010		08/23 08/24	DFT
Potassium	0.050	Ü	mg/L	EPA 6010		08/23 08/24	DFT
Selenium	5.0	U	mg/L	EPA 6010		08/23 08/24	DET
Silver	0.10	Ü	mg/L	EPA 6010		08/23 08/24	
Sodium	0.050 90	U	mg/L	EPA 6010		08/23 08/24	DFT
Thallium			mg/L	EPA 6010		08/23 08/24	DET
Vanadium	0.0050 0.050	U	mg/L	EPA 7841		08/23 08/26	KA
Zinc		U	mg/L	EPA 6010		08/23 08/24	DET
	0.050	U	mg/L	EPA 6010		08/23 08/24	DFT
Dissolved Metals Analys							
ICP Screen, ICF				EPA	n/a		
Aluminum	0.10	U	mg/L	EPA 6010	11/4	08/23 08/24	DC*
Antimony	0.10	Ū	mg/L	EPA 6010		08/23 08/24	DFI DFI
Arsenic	0.10	Ū	mg/L	EPA 6010		08/23 08/24	DFT
Barium	0.078		mg/L	EPA 6010		08/23 08/24	DFI
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24	DET
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24	DEL
Calcium	61		mg/L	EPA 6010		08/23 08/24	DEL
Chromium	0.050	ប	mg/L	EPA 6010		08/23 08/24	DFL
Cobalt	0.10	บ	mg/L	EPA 6010		08/23 08/24	DEL
Copper	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Iron	0.10	U	mg/L	EPA 6010		08/23 08/24	DEL
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Magnesium	27		mg/L	EPA 6010		08/23 08/24	DFL
Manganese	0.12		mg/L	EPA 6010		08/23 08/24	DFL
Molybdenum	0.050	Ü	mg/L	EPA 6010		08/23 08/24	DFL
Nickel	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Potassium	5.0	U	mg/L	EPA 6010		08/23 08/24	DFL
Selenium	0.10	U	mg/L	EPA 6010		08/23 08/24	DFL
Silver	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
Sodium	85		mg/L	EPA 6010		08/23 08/24	DFL
Thallium	0.0050	U	mg/L	EPA 7841		08/23 08/26	KAW
Vanadium Zinc	0.050		mg/L	EPA 6010		08/23 08/24	DFL
21110	0.050	U	mg/L	EPA 6010		08/23 08/24	DFL
TOC, Nonpurgable				EPA 9060	2/2		
TOC Range	10.8-12.3		mg/L	EPA 9060 EPA 9060	n/a	00.407	~~
TOC Concentration	11.3		mg/L	EPA 9060		08/27	CMR
	****		₩ <b>9</b> / L	ELA 3000		08/27	CMR
Residue, Non-Filterable	8		mg/L	EPA 160.2		08/24 08/24	GPP
Residue, Filterable (TDS)	590		mg/L	EPA 160.1	500	08/20 08/23	RJK
			<b>-</b> · -		200	00,20 00,23	I/OV

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Than





**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-4

Client Sample ID :BTR SD08 SW08 DUPLICATE

Matrix

:WATER

Client Name Ordered By Project Name

:DEW LINE

Project# PWSID

:ICF KAISER ENGINEERING

:RAY MORRIS

:BARTER

:UA

FAX: (907) 561-5301 :69700 WORK Order

Report Completed :09/17/93

Collected :08/16/93 @ 17:46 hrs :08/19/93 @ 10:50 hrs Received

5633 B STREET

TEL: (907) 562-2343

ANCHORAGE, AK 99518

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parame	ter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Metals Analysis				-				
	reen, ICF				EPA	n/a			
Alumir	iun	0.10	U	mg/L	EPA 6010		08/23	08/24	DFT
Antimo	ny	0.10	U	mg/L	EPA 6010			08/24	DFL
Arseni		0.10	U	mg/L	EPA 6010			08/24	DFL
Barium		0.085		mg/L	EPA 6010			08/24	DFL
Beryll		0.050	U	mg/L	EPA 6010			08/24	DFL
Cadmiu		0.050	U	mg/L	EPA 6010			08/24	DFL
Calciu		62		mg/L	EPA 6010			08/24	
Chromi		0.050	U	mg/L	EPA 6010			08/24	
Cobalt		0.10	U	mg/L	EPA 6010			08/24	DEL
Copper	•	0.050	U	mg/L	EPA 6010	•		08/24	DFL
Iron		2.3		mg/L	EPA 6010			08/24	DEL
Lead		0.10	U	mg/L	EPA 6010			08/24	DFL
Magnes		27		mg/L	EPA 6010			08/24	DFL
Mangar		0.15		mg/L	EPA 6010			08/24	DFL
Molybo	lenum:	0.050		mg/L	EPA 6010			08/24	DFL
Nickel		0.050		mg/L	EPA 6010			08/24	DFL
Potass		5 <b>.0</b>	Ü	mg/L	EPA 6010			08/24	DFL
Seleni	Lum	0.10	U	mg/L	EPA 6010			08/24	DFL
Silver		0.050	U	mg/L	EPA 6010			08/24	DFL
Sodium		84		mg/L	EPA 6010			08/24	DFL
Thall	Lum	0.005	U	mg/L	EPA 7841			08/26	KAW
Vanad:	Lum	0.050		mg/L	EPA 6010			08/24	DFL
Zinc		0.050	ប	mg/L	EPA 6010		08/23	08/24	DFL
	lved Metals Analys				-				
ICP So	creen, ICF				EPA	n/a			
Alumir	מטת	0.10	U	mg/L	EPA 6010		08/23	08/24	DFL
Antimo	ony	0.10		mg/L	EPA 6010			08/24	DFL
Arseni	lc	0.10	U	mg/L	EPA 6010			08/24	DFL
Barium	n .	0.078		mg/L	EPA 6010			08/24	DFL
Beryll	lium	0.050	U	mg/L	EPA 6010		08/23	08/24	DFL
Cadmiu		0.050		mg/L	EPA 6010			08/24	DFL
Calciu	חנ	62		mg/L	EPA 6010		08/23	08/24	DFL
Chrom	lum	0.050	บ	mg/L	EPA 6010		08/23	08/24	DFL
Cobalt	•	0.050	บ	mg/L	EPA 6010			08/24	DEL
Copper	-	0.050	U	mg/L	EPA 6010		08/23	08/24	
- <del>-</del>									



ENVIRONMENTAL LABORATORY SERVICES

N-18 (9) →		מחסים	T of AN	NI VCTC		
Chemlab Ref.# Client Sample ID Matrix	:93.4173-4 ):BTR SD08 SW08 DUR :WATER	ALICATE		ALISIS	5633 B STR ANCHORAGE, AK 99 TEL: (907) 562-2 FAX: (907) 561-9	9518 2343
Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc	0.10 0.10 2.0 0.12 0.050 0.050 0.050 0.050 0.050		mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010	08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24 08/23 08/24	DET DET DET DET DET DET DET DET DET DET

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

LT = Less Than

NA = Not Analyzed

GT = Greater Than



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-2

Client Sample ID :BTR SD08 SW08 SPIKE

Matrix

:WATER

Ordered By Project Name

:RAY MORRIS

Project# **PWSID** 

Client Name

:BARTER

:ICF KAISER ENGINEERING

:DEW LINE

:UA

WORK Order

Received

:69700

Report Completed :09/17/93 Collected

:08/16/93 @ 17:46 hrs :08/19/93 @ 10:50 hrs

**5633 B STREET** 

TEL: (907) 562-2343

FAX: (907) 561-5301

ANCHORAGE, AK 99518

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKE & SPIKE DUPLICATE RECOVERIES &

RPD SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260	·			
Benzene	0.011		mg/L	EPA 8260		08/20	08/20	KWM
Bromobenzene	0.0010	Ü	mg/L	EPA 8260			08/20	KW
Bromochloromethane	0.0010	U	mg/L	EPA 8260			08/20	KWE
Bromodichloromethane	0.0010	Ü	mg/L	EPA 8260			08/20	KWM
Bromoform	0.0010	U	mg/L	EPA 8260			08/20	KWM
Bromomethane	0.0010	Ū	mg/L	EPA 8260		08/20		KEM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20		M
sec-Butylbenzene	0.0010	Ü	mg/L	EPA 8260		08/20		
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20		KOM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20		KWM
Chlorobenzene	0.010		mg/L	EPA 8260		08/20		KWM
Chloroethane	0.0010	U	mg/L	EPA 8260		08/20		KWM
Chloroform	0.0010	U	mg/L	EPA 8260			08/20	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		08/20		KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20		KWM
4-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
Dibromochloromethane	0.0010	Ü	mg/L	EPA 8260		08/20	•	KWM
12Dibromo3Chloropropane	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
1,2-Dibromoethane	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
Dibromomethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
1,2-Dichlorobenzene	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
1,3-Dichlorobenzene	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
1,4-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
Dichlorodifluoromethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
1,1-Dichloroethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
1,2-Dichloroethane	0.0041	•	mg/L	EPA 8260		08/20		KWM
1,1-Dichloroethene	0.011		mg/L	EPA 8260		08/20		KWM
cis-1,2-Dichloroethene	0.0013		mg/L	EPA 8260		08/20		KWM
transi,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20		KWM
1,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
1,3-Dichloropropane	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
2,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20	-	KWM
1,1-Dichloropropene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
Ethylbenzene	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
Hexachlorobutadiene	0.0010	ŭ	mg/L	EPA 8260		08/20		KWII
Isopropylbenzene	0.0010	Ŭ	mg/L	EPA 8260		08/20		



o-Xylene

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

0.0010

U

mg/L

**EPA** 8260

REPORT of ANALYSIS Chemlab Ref.# :93.4173-2 5633 B STREET ANCHORAGE, AK 99518 Client Sample ID :BTR SD08 SW08 SPIKE TEL: (907) 562-2343 Matrix :WATER FAX: (907) 561-5301 p-Isopropyltoluene 0.0010 u mg/L **EPA** 8260 08/20 08/20 KWI Methylene Chloride 0.0010 U mg/L **EPA** 8260 08/20 08/20 KW Napthalene 0.0010 U mq/L EPA 8260 08/20 08/20 KW n-Propylbenzene 0.0010 U ma/L **EPA** 8260 08/20 08/20 KW Styrene 0.0010 U mg/L **EPA** 8260 08/20 08/20 KW 1112-Tetrachloroethane 0.0010 U mg/L **EPA** 8260 08/20 08/20 KW 1122-Tetrachloroethane 0.0010 U mg/L **EPA** 8260 08/20 08/20 KM. Tetrachloroethene 0.0010 mg/L EPA 8260 08/20 08/20 KWP Toluene 0.010 mg/L EPA 8260 08/20 08/20 KW 1,2,3-Trichlorobenzene 0.0010 U mg/L EPA 8260 08/20 08/20 KW 1,2,4-Trichlorobenzene 0.0010 U mq/L EPA 8260 08/20 08/20 KWP 1,1,1-Trichloroethane 0.0010 U mg/L EPA 8260 08/20 08/20 KW 1,1,2-Trichloroethane 0.0010 U mq/L EPA 8260 08/20 08/20 KWP Trichloroethene 0.0099 EPA 8260 ma/L 08/20 08/20 KW Trichlorofluoromethane 0.0010 **EPA** 8260 mg/L 08/20 08/20 KW 1,2,3-Trichloropropane 0.0010 mg/L EPA 8260 08/20 08/20 KWY 1,2,4-Trimethylbenzene 0.0010 U mg/L EPA 8260 08/20 08/20 KW 1,3,5-Trimethylbenzene 0.0010 11 **EPA** 8260 mg/L 08/20 08/20 KWE Vinyl Chloride 0.0010 U mg/L EPA 8260 08/20 08/20 KWP. p+m-Xylene 0.0010 U EPA 8260 mg/L 08/20 08/20 KW

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

08/20 08/20

KWM

NA = Not Analyzed

LT = Less Than GT = Greater Than





**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.#

:93.4173-5

5633 B STREET ANCHORAGE, AK 99518

Client Sample ID :BTR SD08 SW08 SPIKE

TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix

:WATER

WORK Order

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Report Completed :09/17/93

Project Name

:DEW LINE

:69700

Project#

:BARTER

Collected

:08/16/93 @ 17:46 hr: :08/19/93 @ 10:50 hr:

PWSID

:UA

Received Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

•	-			•				
	Parameter	Results	QC Qual Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Total Metals Analysis							
	ICP Screen, ICF			EPA	n/a			
	Aluminum	0.90	mg/L		, _	08/23	08/24	DFL
	Antimony	0.84	mg/L				08/24	DFI
	Arsenic	0.95	mg/L				08/24	DEL
	Barium	1.06	mg/L				08/24	DFL
	Beryllium	0.36	mg/L				08/24	DEL
	Cadmium	0.47	mg/L				08/24	DFL
	Calcium	71	mg/L				08/24	FL
	Chromium	0.97	mg/L				08/24	
	Cobalt	0.95	mg/L				08/24	DEL
	Copper	0.90	mg/L	EPA 6010			08/24	DFL
	Iron	3.27	mg/L	EPA 6010		08/23	08/24	DFT.
	Lead	0.89	mg/L	EPA 6010		08/23	08/24	DFL
	Magnesium	35	mg/L			08/23	08/24	DFL
	Manganese	1.12	mg/L			08/23	08/24	DFL
	Molybdenum	0.95	mg/L	EPA 6010		08/23	08/24	DFL
	Nickel	0.95	mg/L	EPA 6010		08/23	08/24	DFL
	Potassium	9.48	mg/L			08/23	08/24	DFT
	Selenium	0.88	mg/L				08/24	DFL
	Silver	0.16	mg/L	EPA 6010		08/23	08/24	DEL
	Sodium	109	mg/L				08/24	DFL
	Thallium	0.017	mg/L	EPA 7841		08/23	08/26	KAW
	Vanadium	0.90	mg/L	EPA 6010		08/23	08/26	KAW
	Zinc	0.91	mg/L	EPA 6010		08/23	08/26	KAW
	Dissolved Metals Analys							
	ICP Screen, ICF			EPA	n/a			
	Aluminum	0.96	mg/L	EPA 6010		08/23	08/24	DFL
	Antimony	0.86	mg/L	EPA 6010		08/23	08/24	DFL
	Arsenic	0.97	mg/L	EPA 6010		08/23	08/24	DFL
	Barium	1.08	mg/L	EPA 6010		08/23	08/24	DFL
	Beryllium	0.37	mg/L				08/24	DFL
	Cadmium	0.47	mg/L				08/24	DFL
	Calcium	72	mg/L				08/24	DFL
	Chromium	0.98	mg/L				08/24	DFL
	Cobalt	0.93	mg/L				08/24	DFL
	Copper	0.93	mg/L	EPA 6010		08/23	08/24	
								_





ENVIRONMENTAL LABORATORY SERVICES

No. 8 (9.8)		REF	ORT of ANA	LYSIS			
Chemlab Ref.# Client Sample II Matrix	:93.4173-5 :BTR SD08 SW08 :WATER	SPIKE			Т	5633 B STR ORAGE, AK 99 EL: (907) 562-1 AX: (907) 561-1	9518 2343
Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver - Sodium Thallium Vanadium Zinc	0	0.97 0.90 37 1.10 0.95 0.96 11 0.90 0.17 100 .017 0.91	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 7841 EPA 6010	08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23	08/24 08/24 08/26 08/24	DET DET DET DET DET DET DET DET DET DET

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES



5633 B STREET

TEL: (907) 562-2343 FAX: (907) 561-5301

ANCHORAGE, AK 99518

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-3

Client Sample ID :BTR SD08 SW08 SPIKE DUPLICATE

Matrix

:WATER

Client Name :ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS

Project*

PWSID

:BARTER

:DEW LINE

:UA

WORK Order :69700

Report Completed :09/17/93

Collected :08/16/93 @ 17:46 hrs Received :08/19/93 @ 10:50 hr:

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKE & SPIKE DUPLICATE RECOVERIES & RPD

SEE QC SUMMARY.

Parameter	QC Results Qua		Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics			EPA 8260				
Benzene	0.011	mg/L	EPA 8260		08/20	08/20	KW
Bromobenzene	0.0010 U	mg/L	EPA 8260		08/20	08/20	KW
Bromochloromethane	0.0010 U	mg/L	EPA 8260		08/20	08/20	KWP
Bromodichloromethane	0.0010 U	mg/L	EPA 8260		08/20	08/20	KW
Bromoform	0.0010 U	mg/L	EPA 8260		08/20	08/20	KWP
Bromomethane	<b>0.0010</b> U	mg/L	EPA 8260		08/20	08/20	KWP
n-Butylbenzene	0.0010 U	mg/L	EPA 8260		08/20	08/20	MI
sec-Butylbenzene	0.0010 U	mg/L	EPA 8260		08/20	08/20	<b>WIT</b>
tert-Butylbenzne	0.0010 U	mg/L	EPA 8260		08/20	08/20	KW
Carbon Tetrachloride	0.0010 U	mg/L	EPA 8260		08/20	08/20	KWP
Chlorobenzene	0.010	mg/L	EPA 8260		08/20	08/20	KWP
Chloroethane	0.0010 U	mg/L	EPA 8260		08/20	08/20	KWP
Chloroform	0.0010 U	mg/L	EPA 8260		08/20	08/20	KWI
Chloromethane	0.0010 U	mg/L	EPA 8260		08/20	08/20	KWI
2-Chlorotoluene	0.0010 U	mg/L	EPA 8260		08/20		KWP
4-Chlorotoluene	0.0010 U	mg/L	EPA 8260		08/20		KWI
Dibromochloromethane	0.0010 U	mg/L	EPA 8260		08/20		KWP
12Dibromo3Chloropropane	0 <b>.0010</b> U	mg/L	EPA 8260		08/20		KWI
1,2-Dibromoethane	0.0010 U	mg/L	EPA 8260		08/20		KWP
Dibromomethane	0.0010 U	mg/L	EPA 8260		08/20	08/20	KWM
1,2-Dichlorobenzene	0.0010 U	mg/L	EPA 8260		08/20		KWK
1,3-Dichlorobenzene	0.0010 U	mg/L	EPA 8260		08/20		KWM
1,4-Dichlorobenzene	0.0010 U	mg/L	EPA 8260		08/20	•	KWM
Dichlorodifluoromethane	0 <b>.0010</b> U	mg/L	EPA 8260		08/20		KWM
1,1-Dichloroethane	0.0010 U	mg/L	EPA 8260		08/20		KWM
1,2-Dichloroethane	0.0040	mg/L	EPA 8260		08/20		KWM
1,1-Dichloroethene	0.010	mg/L	EPA 8260		08/20		KWM
cis-1,2-Dichloroethene	0.0012	mg/L	EPA 8260		08/20		KWM
trans1,2-Dichloroethene	0.0010 U	mg/L	EPA 8260		08/20		KWM
1,2-Dichloropropane	0.0010 U	mg/L	EPA 8260		08/20		KWM
1,3-Dichloropropane	0 <b>.0010</b> U	mg/L	EPA 8260		08/20		KWM
2,2-Dichloropropane	0.0010 U	mg/L	EPA 8260		08/20		KWM
1,1-Dichloropropene	0.0010 U	mg/L	EPA 8260		08/20		KWM
Ethylbenzene	0.0010 U	mg/L	EPA 8260		08/20		KWM
Hexachlorobutadiene	0 <b>.001</b> 0 U	mg/L	EPA 8260			08/20	MM
Isopropylbenzene	0.0010 U	mg/L	EPA 8260		08/20	08/20	WH



o-Xylene

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

0.0010

0.0010

U

U

REPORT of ANALYSIS **5633 B STREET** Chemlab Ref.# :93.4173-3 ANCHORAGE, AK 99518 Client Sample ID :BTR SD08 SW08 SPIKE DUPLICATE TEL: (907) 562-2343 Matrix :WATER FAX: (907) 561-5301 p-Isopropyltoluene 0.0010 U mg/L EPA 8260 08/20 08/20 KW Methylene Chloride 0.0010 U mg/LEPA 8260 08/20 08/20 KW Napthalene 0.0010 11 mg/L **EPA** 8260 08/20 08/20 KW n-Propylbenzene 0.0010 11 mg/L **EPA** 8260 08/20 08/20 KW Styrene 0.0010 mq/L **EPA** 8260 08/20 08/20 KWP 1112-Tetrachloroethane 0.0010 mg/L **EPA** 8260 08/20 08/20 KW 1122-Tetrachloroethane 0.0010 mg/L **EPA** 8260 08/20 08/20 KW Tetrachloroethene 0.0010 mg/L **EPA** 8260 08/20 08/20 KW Toluene 0.011 mg/L -**EPA** 8260 08/20 08/20 KWP 1,2,3-Trichlorobenzene 0.0010 mg/L **EPA** 8260 08/20 08/20 KW 1,2,4-Trichlorobenzene 0.0010 11 mg/L **EPA** 8260 08/20 08/20 KW 1,1,1-Trichloroethane 0.0010 11 mg/L **EPA** 8260 08/20 08/20 KW 1,1,2-Trichloroethane 0.0010 u mg/L **EPA 8260** 08/20 08/20 KWP Trichloroethene 0.0099 mq/L EPA 8260 08/20 08/20 KW Trichlorofluoromethane 0.0010 ma/L **EPA** 8260 08/20 08/20 KW 1,2,3-Trichloropropane 0.0010 mg/L U **EPA** 8260 08/20 08/20 KW 1,2,4-Trimethylbenzene 0.0010 EPA 8260 U mg/L 08/20 08/20 KWY. 1,3,5-Trimethylbenzene 0.0010 U **EPA** 8260 mg/L 08/20 08/20 KWP: Vinyl Chloride 0.0010 U mg/L EPA 8260 08/20 08/20 KW p+m-Xylene

mg/L

mq/L

EPA 8260

**EPA** 8260

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

08/20 08/20

08/20 08/20

KWM

KWE

NA = Not Analyzed LT = Less Than



ICF ID	BTR-SD08-2S11	BTR-SD08-2S12	BTR-SD08-2S13-4	BTR-SD08-2S14-4	BTR-SD08-2S15-5
F&BI Number	1730	1732	1734	1736 	1738
Sample Type	soil	soil	soil	soil	soil
Date Received	9/3/93	9/3/93	9/3/93	9/3/93	9/3/93
% Dry Weight	94	90	93	93	88
Sequence Date	#6-09/05/93	#6-09/05/93	#6-09/05/93	#6-09/05/93	#6-09/05/93
Leaded Gas					
JP-4	< 60	< 60	< 60	< 60	< 60
Lube Oil	< 120	< 120	< 120	< 120	< 120
Diesel	< 60	< 60	< 60	< 60	< 60
Spike Level					
Unknown Semi-volatile					
Pentacosane	81	96	88	85	87
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93
CCI4	<0.1J	<0.1 J	<0.1 J	<0.17	<0.1 J
TCA	<0.15 <0.15	<0.1 J	<0.1 J	<0.1プ	<0.1丁
Benzene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
TCE	< 0.1 3	<0.1 J	<0.1 J	< 0.1 J	<0.1 T
Toluene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
PCE	<0.1 J	<0.1 J	<0.15	<0.1J	<0.15
Ethylbenzene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Xylenes	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Gasoline	<1.5	<1 <del>diesel-</del> T	<1J	<1 J	<1 ^丁
Spike level	~ · <b>~</b>	\ . alooor 4	``	~ . •	7,
BFB	98	95	102	97	102
21 U		•	102	<b>U</b> ,	

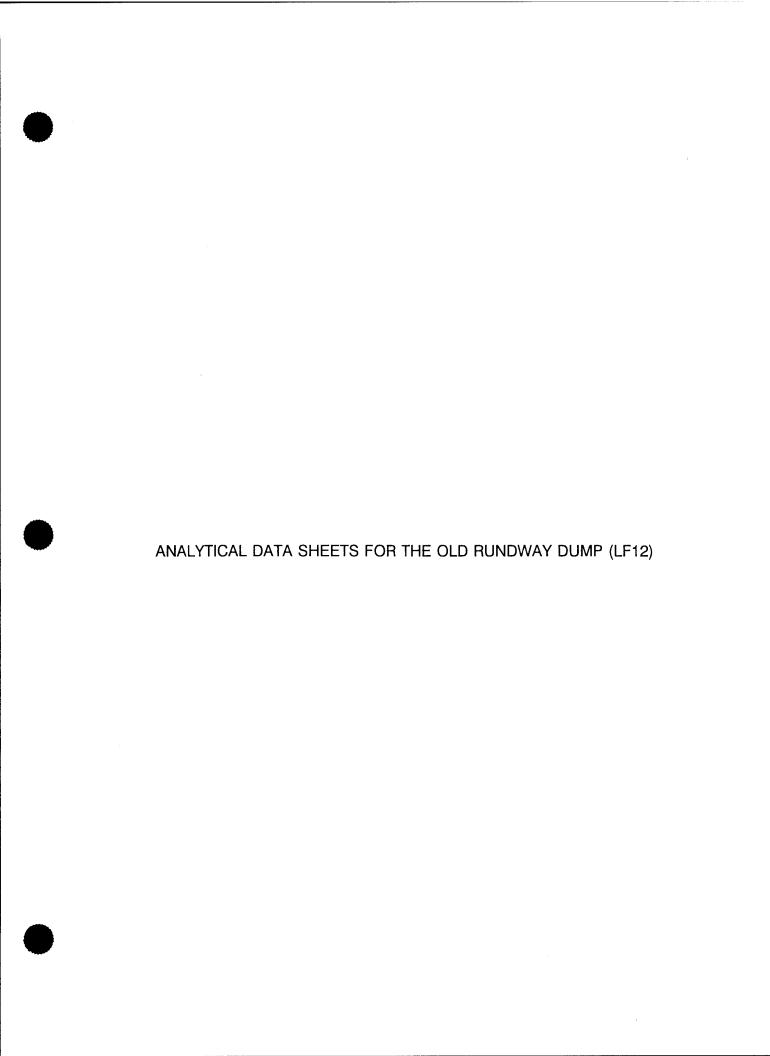
Ilian

ICF ID BTR-SD08-2S16-1 F&BI Number 1740 Sample Type soil **Date Received** 9/3/93 % Dry Weight 93 Sequence Date #6-09/05/93 Leaded Gas JP-4 < 60 Lube Oil < 120 Diesel < 60 Spike Level Unknown Semi-volatile Pentacosane 96 Sequence Date PCB 1221 PCB 1232 **PCB 1016** PCB 1242 PCB 1248 PCB 1254 PCB 1260 Spike Level **Dibutyl Chlorendate** Sequence Date alpha-BHC beta-BHC gamma-BHC delta-BHC Heptachlor Aldrin Heptachlor Epoxide Endosulfan I DDE Dieldrin Endrin Endosulfan II DDD Endrin Aldehyde DDT **Endosulfan Sulfate Endrin Ketone Methoxy Chlor** Chlordane **Dibutyl Chlorendate** Spike Level **Vol Sequence** #1&2-09/06/93 CCI4 <0.15 **TCA** < 0.1 5 Benzene < 0.02 TCE <0.15 Toluene < 0.02 PCE <0.1 T Ethylbenzene < 0.02 Xylenes < 0.04 Gasoline **<1 dieset** 丁

Spike level BFB

96

11.11.9h





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-10 Client Sample ID :BTR-LF12-S01

:SOIL

5633 8 STRE ANCHORAGE, AK 99 TEL (907) 562-2

FAX (907) 561-5

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

:70009

Report Completed Collected

:10/04/93

:08/22/93 0 15:30 :08/24/93 @ 12:00

Received Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	QC R <b>es</b> ults Qua	C al Units	Method	Allowable Limits	Ext. Date	Anal Date	T
Volatile Organics							Ir
Benzene	0.020 ປ		EPA 8260				
Bromobenzene		mg/Kg	EPA 8260		09/09	09/09	ŀ
Bromochloromethane	• • • •	mg/Kg	EPA 8260			09/09	r F
Bromodichloromethane		mg/Kg	EPA 8260		09/09	09/09	r K
Bromoform		mg/Kg	EPA 8260		09/09	09/09	K
Bromomethane		mg/Kg	EPA 8260		09/09	09/09	K K
n-Butylbenzene	<del>_</del>	mg/Kg	EPA 8260			09/09	K.
sec-Butylbenzene	<b>.</b>	mg/Kg	EPA 8260		09/09		K!
tert-Butylbenzne	0.020 ប 0.020 ប	mg/Kg	EPA 8260			09/09	KI
. Carbon Tetrachloride	<b>.</b>	mg/Kg	EPA 8260		09/09	09/09	KI KI
Chlorobenzene		mg/Kg	EPA 8260		09/09	09/09	KI-
Chloroethane		mg/Kg	EPA 8260		09/09		KF
Chloroform	0.020 ປ 0.020 ປ	mg/Kg	EPA 8260		09/09	09/09	KT.
Chloromethane	0.020 ប	mg/Kg	EPA 8260		09/09	09/09	KW
2-Chlorotoluene	0.020 U	mg/Kg	EPA 8260		09/09		KW
4-Chlorotoluene	0.020 ປ	mg/Kg	EPA 8260		09/09		KW
Dibromochloromethane	0.020 U	mg/Kg	EPA 8260		09/09		KW
12Dibromo3Chloropropane	0.020 U	mg/Kg	EPA 8260		09/09		KW
1,2-Dibromoethane	0.020 U	mg/Kg	EPA 8260		09/09	09/09	KW
Dibromomethane	0 <b>.0</b> 20 ປ	mg/Kg	EPA 8260		09/09		KW.
1,2-Dichlorobenzene	0.020 ti	mg/Kg	EPA 8260		09/09		KW:
1,3-Dichlorobenzene	0.020 U	mg/Kg	EPA 8260		09/09		KW)
1,4-Dichlorobenzene	0.020 U	mg/Kg	EPA 8260		09/09	09/09	KWì
Dichlorodifluoromethane	0.020 U	mg/Kg	EPA 8260		09/09		KWI
1,1-Dichloroethane	0.020 U	mg/Kg	EPA 8260	(	09/09	09/09	KWI
1,2-Dichloroethane	0.020 U	mg/Kg	EPA 8260	(	09/09	09/09	KWF
1.1-Dichloroethene	0.020 U	mg/Kg mg/Kg	EPA 8260		09/09 (		KWF
cis-1,2-Dichloroethene	0.020 U	m <b>g∕K</b> g	EPA 8260	(	0 <b>9/</b> 09 (	9/09	KWE
trans1,2-Dichloroethene	0.020 U	mg/Kg	EPA 8260	(	9/09 (	9/09	KWE
1,2-Dichloropropane	0.020 ប	m <b>d\</b> Kd	EPA 8260	(	<b>9/</b> 09 (	9/09	KWH
1,3-Dichloropropane	0.020 U	mg∕Kg	EPA 8260	0	) <b>9/</b> 09 (	9/09	KWM
2,2-Dichloropropane	0.020 U	mg/Kg	EPA 8260	C	9/09 0	19/09	KWM
1,1-Dichloropropene	0.020 U	mg/Kg	EPA 8260		9/09 0		KWM
Ethylbenzene	0.020 ប	mg/Kg	EPA 8260	0	9/09 0	9/09	KWM
Hexachlorobutadiene	0.020 U	mg/Kg	EPA 8260		9/09 0		KWH
Isopropylbenzene	0.020 U	mg/Kg	EPA 8260		9/09 0		KWM
p-Isopropyltoluene	0.020 U	mg/Kg	EPA 8260		<b>9/0</b> 9 0		KWM
	_	<del>,</del> / Ng	EPA 8260	0	<b>9/</b> 09 0	9/09	KWM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlah Ref.# :93.4305-10 Client Sample ID :BTR-LF12-S01

Matrix :SOIL 5633 B STREE ANCHORAGE, AK 9951 TEL: (907) 562-234

HIGGELIA : SOIL			FAX (907) 561-530
Methylene Chloride Napthalene n-Propylbenzene Styrene 1112-Tetrachloroethane 1122-Tetrachloroethane Tetrachloroethene Toluene 1,2,3-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichlorofluoromethane 1,2,3-Trichloropropane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Vinyl Chloride p+m-Xylene 0-Xylene  Semivolatile Organics	0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg	EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260	FAX (907) 561-530  09/09 09/09 F 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K 09/09 09/09 K
Phenol  bis(2-Chloroethyl)ether 2-Chlorophenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene Benzyl Alcohol 1,2-Dichlorobenzene 2-Methylphenol bis(2-Chloroisopropyl)e 4-Methylphenol n-Nitroso-di-n-Propylam Hexachloroethane Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Benzoic Acid bis(2-Chloroethoxy)Meth 2,4-Dichlorophenol 1,2,4-Trichlorobenzene Naphthalene 4-Chloroaniline Hexachlorobutadiene 4-Chloro-3-Methylphenol 2-Methylnaphthalene Hexachlorocyclopentadie 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene	0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg 0.200 U mg/Kg	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11 09/04 09/11



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4305-10 Client Sample ID :BTR-LF12-S01 5633 8 STRE. Matrix ANCHORAGE, AK 995 :SOIL TLL. (907) 562-23 FAX- (907) 561-53 2-Nitroaniline 0.200 U Dimethylphthalate mg/Ka EPA 8270 0.200 09/04 09/11 U Acenaphthylene mg/Ka EPA 8270 0.200 09/04 09/11 Ħ 2,6-Dinitrotoluene mg/Ka **EPA** 8270 0.200 09/04 09/11 U 3-Nitroaniline mg/Ka EPA 8270 0.200 09/04 09/11 U Acenaphthene mg/Kg EPA 8270 0.200 09/04 09/11 U 2,4-Dinitrophenol mq/Ka ٢ EPA 8270 0.200 09/04 09/11 U 4-Nitrophenol mg/Ka ۲ EPA 8270 09/04 09/11 0.200 U mg/Kg Dibenzofuran ۲ EPA 8270 0.200 09/04 09/11 2,4-Dinitrotoluene U mg/Kg M EPA 8270 09/04 09/11 0.200 Ü Diethylphthalate mg/Kg EPA 8270 M 0.200 09/04 09/11 4-Chlorophenyl-Phenylet U mg/Kg М EPA 8270 0.200 09/04 09/11 U Fluorene mg/Ka M' EPA 8270 0.200 09/04 09/11 4-Nitroaniline 11 mg/Ka H EPA 8270 09/04 09/11 0.200 4,6-Dinitro-2-Methylphe U mg/Ka M EPA 8270 09/04 09/11 n-Nitrosodiphenylamine 0.200 11 mg/Kg M EPA 8270 09/04 09/11 4-Bromophenyl-Phenyleth 0.200 11 mg/Kg MT. EPA 8270 09/04 09/11 0.200 U Hexachlorobenzene mg/Kg MI EPA 8270 09/04 09/11 0.200 Ü Pentachlorophenol mg/Kg EPA 8270 MT 0.200 09/04 09/11 U Phenanthrene mg/Kg EPA 8270 MT 0.200 09/04 09/11 U Anthracene mg/Kg MT EPA 8270 0.200 09/04 09/11 U di-n-Butylphthalate mg/Kg MT EPA 8270 0.400 09/04 09/11 U Fluoranthene mg/Kq HT EPA 8270 0.21 09/04 09/11 U Pyrene mg/Kq MT EPA 8270 09/04 09/11 0.21 u Butylbenzylphthalate mg/Kg MT EPA 8270 0.21 09/04 09/11 3,3-Dichlorobenzidine U mg/Kg MT. EPA 8270 0.21 09/04 09/11 Benzo(a)Anthracene U mg/Kg HT. EPA 8270 0.21 09/04 09/11 U Chrysene mg/Kg MT EPA 8270 0.21 09/04 09/11 U bis(2-Ethylhexyl)Phthal mg/Kg MT EPA 8270 0.400 09/04 09/11 U di-n-Octylphthalate mg/Ka MT EPA 8270 09/04 09/11 0.21 U Benzo(b)Fluoranthene MTI mg/Kg EPA 8270 09/04 09/11 0.21 U Benzo(k)Fluoranthene mg/Kg MTT EPA 8270 09/04 09/11 0.21 U mg/Kg Benzo(a)Pyrene MTI EPA 8270 09/04 09/11 0.21 U Indeno(1,2,3-cd)Pyrene mg/Kg MTI EPA 8270 09/04 09/11 0.21 U Dibenz(a,h)Anthracene mg/Kg MTT EPA 8270 09/04 09/11 0.21 Benzo(g,h,i)Perylene U MTT mg/Kg EPA 8270 0.21 09/04 09/11 U mg/Kq MTT EPA 8270 09/04 09/11 Sample Preparation HTT Total Metals Analysis EPA 3050 Digest ICP Screen, ICF Aluminum EPA 1700 n/a Antimony mg/Ka EPA 6010 52 08/27 08/29 U Arsenic DFL mg/Ka EPA 6010 5.2 U 08/27 08/29 Barium mg/Kq DFL EPA 6010 16 08/27 08/29 Beryllium DFL mg/Ka EPA 6010 2.6 08/27 08/29 Cadmium mg/Kg DFL EPA 6010 2.6 08/27 08/29 Calcium mg/Ka DFL. EPA 6010 2200 08/27 08/29 Chromium DFL mg/Kg EPA 6010 08/27 08/29 4.5 Cobalt DFL mg/Kg EPA 6010 5.2 08/27 08/29 U Copper mg/Kg DFL. EPA 6010 7.3 08/27 08/29 Iron mg/Kg DFT. EPA 6010 7500 08/27 08/29 mg/Kg DFL. EPA 6010 08/27 08/29 DFL



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4305-10 5633 B STREE Client Sample ID :BTR-LF12-S01 ANCHORAGE, AK 995 Matrix TEL: (907) 562-23 :SOIL FAX: (907) 561-530 Lead 5.2 U mg/Kg EPA 6010 Magnesium 08/27 08/29 1100 mg/Kg EPA 6010 08/27 08/29 Manganese 67 mg/Kg EPA 6010 08/27 08/29 Molybdenum I 2.6 U mg/Kg EPA 6010 08/27 08/29 Nickel 5.3 mg/Kg EPA 6010 Potassium 08/27 08/29 Γ 260 U mg/Kg EPA 6010 08/27 08/29 Selenium Γ 52 U· mg/Kq EPA 6010 08/27 08/29 Silver C 2.6 U mg/Ka EPA 6010 08/27 08/29 Sodium C 410 mg/Kg EPA 6010 Thallium 08/27 08/29 C 0.25 U mg/Kg EPA 7841 08/26 08/28 Vanadium K 5.1 mg/Kg EPA 6010 Zinc 08/27 08/29 D 16 mg/Kg EPA 6010 08/27 08/29 D TOC, Soil 7680

mg/Kg

PSEP Ref Lab

See Sample Remarks Above

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U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

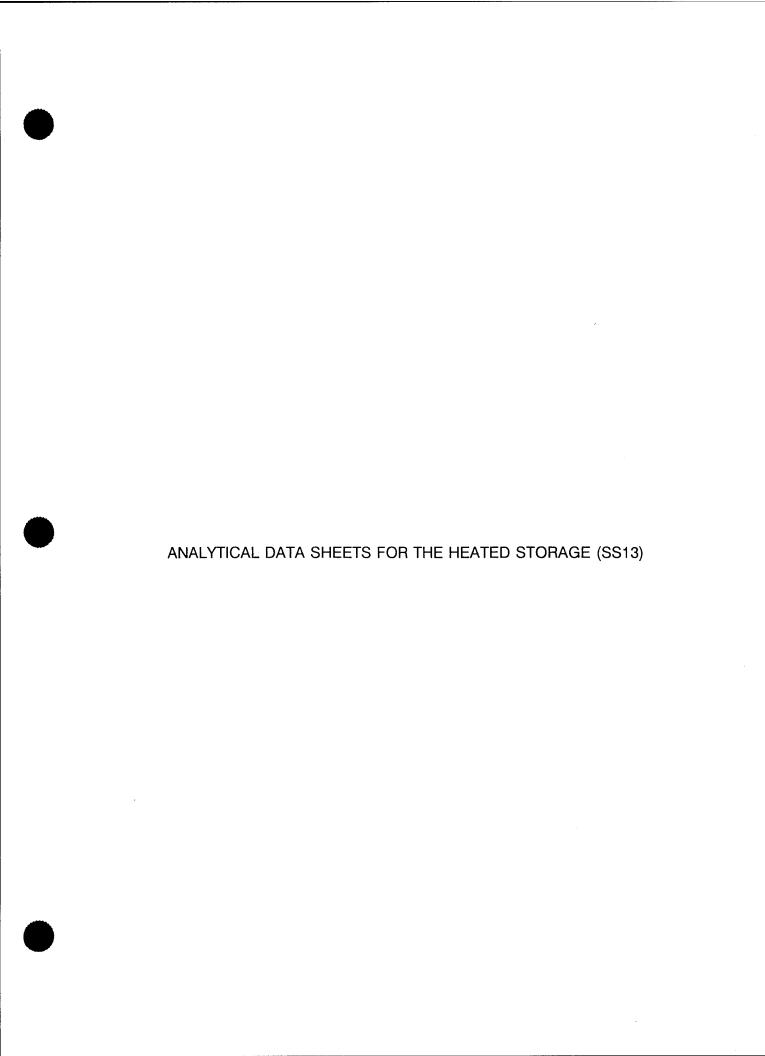
NA = Not AnalyzedLT = Less Than



See Special Instructions Above

ICF ID F&BI Number Sample Type	BTR-LF12-S01 416 soil	BTR-LF12-S01 416 dup soil	BTR-LF12-S02 412 soil	BTR-LF12-S03 413 dup soil	BTR-LF12-S03 414 soil	BTR-LF12-S03 414 dup soil
Date Received % Dry Weight Sequence Date	8/23/93 93 #6-08/23/93	8/23/93	8/23/93 93 #6-08/23/93	8/23/93 #6-08/23/93	8/23/93 91 #6-08/23/93	8/23/93 91
Leaded Gas	. 50		.=-		/ <b></b>	.ro
JP-4	< 50		< 50	< 50	<b>250</b>	< 50
Lube Oil Diesel	<100 <50 プ		< 100 < 50 J	< 100 < 50	<100	< 100 < 50
Spike Level	< 30 )		< 50 7	< 50	<b>450</b> J	< 50
Unknown Semi-volatile						
Pentacosane	87		97	97		95
Sequence Date	#6-08/23/93		#6-08/23/93	0,	#6-08/23/93	#6-08/23/93
PCB 1221	< 0.5		< 0.5		< 0.5	< 0.5
PCB 1232	< 0.5		< 0.5		< 0.5	< 0.5
PCB 1016	< 0.5		< 0.5		< 0.5	< 0.5
PCB 1242	< 0.5		< 0.5		< 0.5	< 0.5
PCB 1248	< 0.5		< 0.5		< 0.5	< 0.5
PCB 1254	< 0.5		< 0.5		< 0.5	< 0.5
PCB 1260	< 0.5		< 0.5		< 0.5	< 0.5
Spike Level						
Dibutyl Chlorendate	88		100		88	106
Sequence Date	#6-08/23/93	#6-08/23/93				
alpha-BHC	< 0.01 T	< 0.01				
beta-BHC	< 0.01	< 0.01				
gamma-BHC	< 0.01	< 0.01				
delta-BHC	< 0.01	< 0.01				
Heptachlor	< 0.01	< 0.01				
Aldrin	< 0.01	< 0.01				
Heptachlor Epoxide	< 0.01	< 0.01				
Endosulfan l	< 0.01	< 0.01				
DDE	< 0.01	< 0.01				
Dieldrin	< 0.01	< 0.01				
Endrin	< 0.01	< 0.01				
Endosulfan II	< 0.01	< 0.01				
DDD Cadala Aldahada	< 0.01	< 0.01				
Endrin Aldehyde DDT	< 0.01 < 0.01	< 0.01 < 0.01				
וטט Endosulfan Sulfate	< 0.01	< 0.01				
Endrin Ketone	< 0.01	< 0.01				
Methoxy Chlor	<0.01 V					
Chlordane	< 0.5 J	< 0.5				
Dibutyl Chlorendate	88					
Spike Level						
Vol Sequence	#1&2-08/24/93		#1&2-08/24/93		#1&2-08/24/93	#1&2-08/24/93
CCI4	< 0.02		< 0.02		< 0.02	< 0.02
TCA	< 0.02		< 0.02		< 0.02	< 0.02
Benzene	< 0.02 丁		< 0.02 5		< 0.025	< 0.02
TCE	< 0.02		< 0.02		< 0.02	< 0.02
Toluene	< 0.02		< 0.02		< 0.02	< 0.02
PCE	< 0.02 5		<0.02 J		< 0.02 丁	< 0.02
Ethylbenzene	< 0.02		< 0.02		< 0.02	< 0.02
Xylenes	< 0.04		< 0.04		< 0.04	< 0.04
Gasoline	<2 J		<2 J		<2J	<2
Spike level						
BFB	88		98		89	91

ICF ID F&BI Number	BTR-LF12-S03 414 ms	BTR-LF12-S03 414 msd
Sample Type	soil	soil
Date Received	8/23/93	8/23/93
% Dry Weight		
Sequence Date	#6-08/23/93	#6-08/23/93
Leaded Gas		
JP-4		
Lube Oil		
Diesel	95	110
Spike Level	500	500
Unknown Semi-volatile		
Pentacosane	95	87
Sequence Date	#6-08/23/93	#6-08/23/93
PCB 1221		
PCB 1232		
PCB 1016		
PCB 1242		
PCB 1248		
PCB 1254	92	104
PCB 1260		
Spike Level	5	5
Dibutyl Chlorendate	107	140
Sequence Date		
alpha-BHC		
beta-BHC		
gamma-BHC		
delta-BHC		
Heptachlor		
Aldrin		
Heptachlor Epoxide		
Endosulfan l		
DDE		
Dieldrin		
Endrin		
Endosulfan II		
DDD		
Endrin Aldehyde		
DDT		
Endosulfan Sulfate		
Endrin Ketone		
Methoxy Chlor		
Chlordane		
Dibutyl Chlorendate		
Spike Level		
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93
CCI4	53	66
TCA	62	57
Benzene	57	62
TCE	59	70
Toluene	63	72
PCE	70	93
Ethylbenzene	75	89
Xylenes	71	82
Gasoline		
Spike level	1	1
BFB	90	98





## COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

emlab Ref.# :93.4216-3 Client Sample ID :BTR SS13 S01

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL (907) 562-2343 FAX (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name Project#

PWSID

:DEW LINE :BARTER :UA

RUSH Order

:69828

Report Completed Collected

:08/30/93 **:08**/18/93

@ 11:50 hr: Received :08/20/93 @ 11:30 hr:

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL. EPH PATTERN

Parameter  Percent Solids			l Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	97.0 116		<b>%</b> mg∕Kg	SN17 2540G 3510/3550/8100M		00/22	08/22 08/24	M
VPH & BTEX						00/22	08/24	JBF
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/25	WLS
Benzene Toluene	0.020	11	mor/Va			00, 21	00/23	WLC
TOTGELIE	0.020	Ü	mg/Kg mg/Kg	EPA 8020		08/21	08/23	JLE
Ethylbenzene	0.020	Ü	mg∕Kg	EPA 8020		08/21		JLB
x Xylene	0.020	Ü	mg/Kg	EPA 8020		08/21	08/23	JLB
Xylene	0.021	•	mg/kg mg/kg	EPA 8020		08/21	08/23	JLB
Unlarge to the second			mg/ ng	EPA 8020		08/21	08/23	JLB
Halogenated Volatile Or				ED) 0010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010				
1,1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010 EPA 8010		08/21	08/23	JLB
1,1 Dichloroethane Chloroform	0.020	U	mg/Kg	EPA 8010		08/21		JLB
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21		JLB
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21		JLB
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21		JLB
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21		JLB
Dibromochloromethane	0.020	Ü	mg/Kg	EPA 8010		08/21		JLB
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21		JLB
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21		JLB
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21 (		JLB
Trans12Dichloroethylene	0.020	Ü	ing/Kg	EPA 8010		08/21 (		JLB
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21 ( 08/21 (		JLB
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21 0		JLB
Bromodichloromethane	0.020 0.020	Ü	mg/Kg	EPA 8010		08/21 0		JLB JLB
Transl, 3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21 0		JLB
Cis-1, J-Dichloropropens	0.020	U	mg/Kg	EPA 8010		08/21 0		JLB
Bromororm	0.020	U	mg/Kg	EPA 8010		08/21 0		JLB
1122-Tetrachloroethane	0.020	U U	mg/Kg	EPA 8010		08/21 0		JLB
Chloromethane			mg/Kg	EPA 8010		08/21 0		JLB
Bromoethane			mg/Kg	EPA 8010		08/21 0		JLB
Vinyl Chloride	<u> </u>		mg/Kg	EPA 8010		08/21 0		JLB
loroethane			mg/Kg	EPA 8010		08/21 0		JLB
		5	mg/Kg	EPA 8010		08/21 0		JLB
						•		



### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlai	Ref.#		:93.4	4216-3	3
Client	Sample	ID	:BTR	SS13	S01

5633 8 STHEET ANCHORAGE, AK 99518

MICHAEL :S	OIL				TEL: (907) 562 FAX: (907) 561	.2343 .5301
<pre>1,4 Dichlorobenzer 2-Chloroethylviny 1,3-Dichlorobenzer 1,2-Dichlorobenzer</pre>	lether 0.020	บ ข <b>ข</b>	ng/Kg ng/Kg ng/Kg ng/Kq	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/21 08/23 08/21 08/23 08/21 08/23	TLI JLI
PCBs in Soil	0.932			CT V 0010	08/21 08/23	JLE
Aroclor	1254		<b>mg/K</b> g	EPA 8080	08/21 08/24	NRC

See Special Instructions Above

See Sample Remarks Above ! = Undetected, Reported value is the practical quantification limit.

UA = Unavailable

NA = Not Analyzed

LT = Less Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref. :93.4216-10 Client Sample ID :BTR SS13 S02

:SOIL Matrix

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 581-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project* PWSID

BARTER :UA

RUSH Order

:69828 Report Completed :08/30/93

:08/18/93 Collected @ 14:00 hrs 108/20/93 @ 11:30 hrs Received

Technical Director: STEPHEN C. EDE

Released By :

mes 5 1090 HG/KG Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. OF EPH PATTERN IS NOT CONSISENT WITH UNWEATHERED MIDDLE DISTILLATE acalifier Comments

FUEL.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Percent Solids	94.3		4	SM17 2540G	compile		08/22	357
	Hydrocarbons EPH	3580	D	mg/Kg	3510/3550/8100M	J(K) Brm 18.94	08/22	08/24	JBE
	VPH & BTEX				EPA 8015H/8020		00.404		
	Hydrocarbons VPH	423	D	mg/Kg	EPA 5030/8015m		08/21	08/27	WLS
_	Benzene	0.020	U	mg/Kg	EPA 8020	1		08/23	JLE
	Toluene	0.632		mg/Kg	EPA 8020(N)-	<b>K</b> .'		08/23	JLE
	Ethylbenzene	0.283		mg/Kg	EPA 8020			08/23	JLE
	p&m Xylene	0.510		mg/Kg	EPA 8020			08/23	JLE
	o-Xylene	2.02		mg/Kg	EPA 8020 V		08/21	08/23	JLE
	Halogenated Volatile Or				EPA 8010	•	•		
	Methylene Chloride	0.020	U	mg/Kg	EPA 8010			08/23	JLE
	1.1 Dichloroethylene	0.020	U	mg/Kg	EPA 8010			08/23	JLE
	1.1 Dichloroethane	0.020	U	mg/Kg	EPA 8010			08/23	JLE
	Chloroform	0.020	Ū	mg/Kg	EPA 8010			08/23	JLP
	Carbontetrachloride	0.020	U	mg/Kg	EPA 8010			08/23	JLE
	1. 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010			08/23	JLE
	Trichloroethylene	0.020		mg/Kg	EPA 8010			08/23	JLE
	1,1,2 Trichloroethane	0.020	บ	mg/Kg	EPA 8010			08/23	JLE
	Dibromochloromethane	0.020	บ	mg/Kg	EPA 8010			08/23	JLE
	Tetrachloroethylene	0.020	บ	mg/Kg	EPA 8010			08/23	JLE
	Chlorobenzene	0.020	U	mg/Kg	. EPA 8010			08/23	JLE
	Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010			08/23	JLE
	Trans12Dichloroethylene	0.020	บ	mg/Kg	EPA 8010			08/23	JLE
	1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010			08/23	JLE
	1,1,1 Trichoroethane	0.020	บ	mg/Kg	EPA 8010			08/23	JLE
	Bromodichloromethane	0.020	U	mg/Kg	EPA 8010			08/23	JLE
	Transi, 3Dichloropropene	0.020	U	mg/Kg	EPA 8010			08/23	ЛI
	cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010			08/23	JLI
	Bromoform	0.020		mg/Kg	EPA 8010			08/23	JL
	1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010			08/23	JLI
	Chloromethane	0.020		mg/Kg	EPA 8010			08/23	JLI
	Bromoethane	0.020	Ü	mg/Kg	EPA 8010			08/23	JL
	Vinyl Chloride	0.020		mg/Kg	EPA 8010		08/21	08/23	JLI

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### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

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314CE 1908						
Chemlab Ref.# :93.4216-10 Client Sample ID :BTR SS13 SC Matrix :SOIL		REPORT of AL	MALYSIS	5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301		
Chloroethane 1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020 0.020 0.020 0.020 0.020	U mg/Kg U mg/Kg U mg/Kg U mg/Kg U mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/21 08/23		
PCBs in Soil	2.72 1254	<b>m</b> g/Kg	EPA 8080	08/21 08/23 JL 08/21 08/24 NR		
· ·				•		

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

NA = Not Analyzed LT = Less Than GT = Greater Than

UA = Unavailable





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR SS13 S02

:93.4212-5

Matrix

Project#

PWSID

:SOIL

:ICF KAISER ENGINEERING

WORK Order :69840

Report Completed :10/08/93 Collected :08/18/93

@ 14:06 Received **:08/20/93** @ 11:30

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

hrs

hrs

FAX (907) 561-5301

Technical Director: STEPHEN 9. EDE

Released By :

Client Name

Ordered By Project Name

:RAY MORRIS :DEW LINE :BARTER

:UA

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.100	U	mg/Kg	EPA 8260		00/24	09/01	LETIM
Bromoben <b>zene</b>	0.100	U	mg/Kg	EPA 8260			09/01	KWM
Bromochloromethene	0.100	U	mg/Kg	EPA 8260			09/01	KWM
Bromodichloromethane	0.100	U	mg/Kg	EPA 8260			09/01	KWM KWM
Bromoform	0.100	U	mg/Kg	EPA 8260			09/01	KWM
Bromomethane	0.100	ប	mg/Kg	EPA 8260			09/01	KWM
n-Butylbenzene	0.100	U	mg/Kg	EPA 8260			09/01	KWM
sec-Butylben <b>zene</b>	0.100	U	mg/Kg	EPA 8260			09/01	KWM
tert-Butylbenzne	0.100	U	mg/Kg	EPA 8260			09/01	KWM
Carbon Tetrachloride	0.100	U	mg/Kg	EPA 8260			09/01	KWM
Chlorobenzene	0.100	U	mg/Kg	EPA 8260		•	09/01	KWM
Chloroethane	0.100	U	mg/Kg	EPA 8260			09/01	KWM
Chloroform	0.100	U	mg/Kg	EPA 8260			09/01	KWM
Chloromethane	0.100	U	mg/Kg	EPA 8260			09/01	KWM
2-Chlorotoluene	0.100	U	mg/Kg	EPA 8260			09/01	KWM
4-Chlorotoluene	0.100	ប	mg/Kg	EPA 8260		08/24		KWM
Dibromochloromethane	0.100		mg/Kg	EPA 8260			09/01	KWM
12Dibromo3Chloropropane	0.100	U	mg/Kg	EPA 8260			09/01	KWM
1,2-Dibromoethane	0.100		mg/Kg	EPA 8260		08/24		KWM
Dibromomethane	0.100		mg/Kg	EPA 8260		08/24		KWM
1,2-Dichlorobenzene	0.100		mg/Kg	EPA 8260		08/24		KWM
1,3-Dichlorobenzene	0.100		mg/Kg	EPA 8260		08/24		KWM
1,4-Dichlorobenzene	0.100		mg/Kg	EPA 8260		08/24		KWM
Dichlorodifluoromethane	0.100		mg/Kg	EPA 8260		08/24		KWM
1,1-Dichloroethane	0.100		mg/Kg	EPA 8260		08/24		KWM
1,2-Dichloroethane	0.100		mg/Kg	EPA 8260		08/24		KWM
1,1-Dichloroethene	0.100		mg/Kg	EPA 8260		08/24		KWM
cis-1,2-Dichloroethene	0.100		mg/Kg	EPA 8260		08/24		KWM
trans1,2-Dichloroethene	0.100		mg/Kg	EPA 8260		08/24	09/01	KWM
1,2-Dichloropropane	0.100		mg/Kg	EPA 8260		08/24		KWM
1,3-Dichloropropane 2,2-Dichloropropane	0.100		mg/Kg	EPA 8260		08/24	09/01	KWM
1,1-Dichloropropene	0.100		mg/Kg	EPA 8260		08/24	09/01	KWM
Ethylbenzene	0.100		mg/Kg	EPA 8260		08/24	09/01	KWM
Hexachlorobutadiene	0.100 0.100		mg/Kg	EPA 8260		08/24		KWM
Isopropylbenzene	0.100		mg/Kg	EPA 8260		08/24		KWM
p-Isopropyltoluene	0.100		mg/Kg	EPA 8260		08/24		KWM
r restropit cordens	0.100	U	mg/Kg	EPA 8260		08/24	09/01	KWM



ENVIRONMENTAL LABORATORY SERVICES

Site English		DFD	ORT of AN	INT VCTC		
Chemlab Ref.# :93.4212-5		11111	OKI OI AN	IMLI 212	5633 <b>B S</b> 1	TRE.
	า				ANCHORAGE, AK	99518
Client Sample ID :BTR SS13 S0	2				TEL: (907) <b>56</b> ; FAX: (907) <b>56</b> ;	
Matrix :SOIL					1 AA: (307) 38	1-5301
Methylene Chloride	0.100	U	mg/Kg	EPA 8260	08/24 09/ <b>01</b>	KWM
Napthalene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
n-Propylbenzene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Styrene	0.100	Ü	mg/Kg	EPA 8260	08/24 09/01	KWM
1112-Tetrachloroethane	0.100	Ü				
1122-Tetrachloroethane			mg/Kg	EPA 8260	08/24 09/01	KWM
	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
Tetrachloroethene	0.100	U	mg/Kg	EPA 8260	08/24 09/ <b>01</b>	KWM
Toluene	0.100	U	mg/Kg	EPA 8260	08/24 09/ <b>01</b>	KWM
1,2,3-Trichlorobenzene	0.100	U	mg/Kg	EPA 8260	08/24 09/ <b>01</b>	KWM
1,2,4-Trichlorobenzene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,1,1-Trichloroethane	0.100	ប	mg/Kg	EPA 8260	08/24 09/01	KWM
1,1,2-Trichloroethane	0.100	Ü				
Trichloroethene			mg/Kg	EPA 8260	08/24 09/01	KWM
	0.100	Ü	mg/Kg	EPA 8260	08/24 09/01	KWM
Trichlorofluoromethane	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,3-Trichloropropane	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
1,2,4-Trimethylbenzene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	·KWM
1,3,5-Trimethylbenzene	7.68	D	mg/Kg	EPA 8260	08/24 09/01	KWM
Vinyl Chloride	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
p+m-Xylene	0.100	U	mg/Kg	EPA 8260	08/24 09/01	KWM
o-Xylene	0.124	Ď	mg/Kg	EPA 8260	08/24 09/01	KWM
5, z 66	V.121		mg/ Ng	EFA 0200	00/24 03/01	LMII
Semivolatile Organics				FD1 0270		
Phenol	2 10	* *	m m /17 m	EPA 8270	00/04 10/05	
	2.10	U	mg/Kg	EPA 8270	08/31 10/06	
bis(2-Chloroethyl)ether	2.10	U	mg/Kg	EPA 8270	08/31 10/06	<b>→</b>
2-Chlorophenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
1,3-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
1,4-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Benzyl Alcohol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
1,2-Dichlorobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2-Methylphenol	2.10	Ū	mg/Kg	EPA 8270	08/31 10/06	GV
bis(2-Chloroisopropyl)e	2.10	Ü				
4-Methylphenol			mg/Kg	EPA 8270	08/31 10/06	GV
	2.10	Ü	mg/Kg	EPA 8270	08/31 10/06	GΫ
n-Nitroso-di-n-Propylam	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Hexachloroethane	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Nitrobenzene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Isophorone	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2-Nitrophenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2,4-Dimethylphenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Benzoic Acid	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
bis(2-Chloroethoxy)Meth	2.10	Ū	mg/Kg	EPA 8270	08/31 10/06	GV
2,4-Dichlorophenol	2.10	Ü	ng/Kg		08/31 10/06	
1,2,4-Trichlorobenzene				EPA 8270		GV
	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Naphthalene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
4-Chloroaniline	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Hexachlorobutadiene	2.10	U	mg/Kg	EPA 8270	<b>0</b> 8/31 10/06	GV
4-Chloro-3-Methylphenol	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2-Methylnaphthalene	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
Hexachlorocyclopentadie	2.10	U	mg/Kg	EPA 8270	08/31 10/06	GV
2,4,6-Trichlorophenol	2.10	Ū	mg/Kg	EPA 8270	08/31 10/06	GV
2,4,5-Trichlorophenol	2.10	Ü	mg/Kg	EPA 8270		<u>سم</u>
2-Chloronaphthalene	2.10	Ü	ng/kg ng/Kg		08/31 10/06	
- sixoronaphenarene	4.10	J	mg/ r/d	EPA 8270	<b>08/</b> 31 10/06	

# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

		REP	ORT of A	NALYSIS			
Chemlab Ref.# :93.4212-5						5633 B :	STREET
Client Sample ID :BTR SS13 S02						ANCHORAGE, A	
Matrix :SOIL						TEL: (907) 5 FAX: (907) 5	
						(557) 5	01-5501
2-Nitroaniline	2.10	U	m == /12==				
Dimethylphthalate	2.10	_	mg/Kg	EPA 8270		08/31 10/06	
Acenaphthylene		Ü	mg/Kg	EPA 8270		08/31 10/06	GV
	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
2,6-Dinitrotoluene	2.10	U	mg∕Kg	EPA 8270		08/31 10/06	
3-Nitroaniline	2.10	U	mg/Kg	EPA 8270		08/31 10/06	
Acenaphthene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	
2,4-Dinitrophenol	2.10	U	mg/Kg	EPA 8270		08/31 10/06	
4-Nitrophenol	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Dibenzofuran	2.10		mg/Kg	EPA 8270			
2,4-Dinitrotoluene	2.10	Ū	mg/Kg			08/31 10/06	_
Diethylphthalate	2.10	Ü	mg/Kg	EPA 8270		08/31 10/06	GV
4-Chlorophenyl-Phenylet	2.10	Ü		EPA 8270		08/31 10/06	GV
Fluorene			mg/Kg	EPA 8270		08/31 10/06	GV
4-Nitroaniline	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
4,6-Dinitro-2-Methylphe	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
n-Nitrosodiphenylamine	2.10		mg/Kg	EPA 8270		08/31 10/06	GV
4-Bromophenyl-Phenyleth	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Hexachlorobenzene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Pentachlorophenol	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Phenanthrene	2.10	Ü	mg/Kg	EPA 8270		08/31 10/06	GV
Anthracene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
di-n-Butylphthalate	2.10	Ü	mg/Kg	EPA 8270			
Fluoranthene	2.10	Ū	mg/Kg			08/31 10/06	GV
Pyrene	2.10	บ		EPA 8270		08/31 10/06	GV
Butylbenzylphthalate	2.10		mg/Kg	EPA 8270		08/31 10/06	GV
3,3-Dichlorobenzidine		U	mg/Kg	EPA 8270		08/31 10/06	GV
	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Benzo(a)Anthracene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Chrysene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
bis(2-Ethylhexyl)Phthal	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
di-n-Octylphthalate	2.10	U	mg∕Kg	EPA 8270		08/31 10/06	GV
Benzo(b)Fluoranthene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Benzo(k)Fluoranthene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Benzo(a)Pyrene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Indeno(1,2,3-cd)Pyrene	2.10	U	mg/Kg	EPA 8270		08/31 10/06	GV
Dibenz(a,h)Anthracene	2.10	U	mg/Kg	EPA 8270			
Benzo(g,h,i)Perylene	2.10		mg/Kg	EPA 8270		08/31 10/06	GV
•		•	g/ 11g	ECA 0270		08/31 10/06	GV
Sample Preparation				FDN 2050 Dime-			
Total Metals Analysis				EPA 3050 Digest			
ICP Screen, ICF							
Aluminum	3000		/17	EPA	n/a		
Antimony			mg/Kg	EPA 6010		08/24 08/25	DFL
Arsenic	_54	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Barium	5.4	U	mg/Kg	EPA 6010		08/24 08/25	DFL
	43		mg/Kg	EPA 6010		08/24 08/25	DFL
Beryllium Cadmium	2.7	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Cadmium	2.7	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Calcium	14000		mg/Kg	EPA 6010		08/24 08/25	DFL
Chromium	17		mg/Kg	EPA 6010		08/24 08/25	DFL
Cobalt	5.4	U	mg/Kg	EPA 6010		08/24 08/25	DFL
Copper	12		mg/Kg	EPA 6010		08/24 08/25	DFL
Iron	9600		mg/Kg	EPA 6010		08/24 08/25	DFL
7			- 3, - 13	<u> </u>		VU/ ZM VO/ ZD	Di L

**ENVIRONMENTAL LABORATORY SERVICES** 

5633 B ST.		
ANCHORAGE, AK		
FAX. (907) 50	1-5501	
08/24 08/25	DFL	
08/24 08/27	DFL	
08/24 08/26	KAW	
08/24 08/25	DFL	
08/24 08/25	DFL	
	TEL: (907) 566 FAX: (907) 56  08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/25 08/24  08/26 08/24  08/25	

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Anal

LT = Less Than GT = Greater !!





Client Name

### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref. # :93.4219-2

Client Sample ID :BTR SS13 SD02 SPIKE

Matrix :S0

:SOIL

:ICF KAISER ENGINEERING

Ordered By :RAY MORRIS
Project Name :DEW LINE

Project Name : DEW LINE Project# :BARTER

PWSID :UA

RUSH Order :69831

Report Completed :08/30/93

Collected :08/18/93 @ 13:46 hr Received :08/20/93 @ 11:30 hr

5633 B STREET

TEL: (907) 562-2343 FAX: (907) 561-5301

ANCHORAGE, AK 99518

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. SEE QC SUMMARY FOR

SPIKE RECOVERIES AND RPD VALVES.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini.
Percent Solids	93.9		*	SM17 2540G			08/21	MT
Hydrocarbons EPH	91.1		mg/Kg	3 <b>510/3550/8100M</b>		08/21	08/26	JBI
VPH & BTEX				EPA 8015H/8020				
Hydrocarbons VPH	10.7		mg/Kg	EPA 5030/8015m		08/21	08/25	WL
Benzene	0.443		mg/Kg	EPA 8020		08/21	08/24	JLI
Toluene	0.449		mg/Kg	EPA 8020		08/21	08/24	JL
Ethylbenzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JLI
p&m Xylene	0.020	U	mg/Kg	EPA 8020		08/21		JLI
o-Xylene	0.020	U	ng/Kg	EPA 8020		08/21		JLI
Halogenated Volatile Or				EPA 8010		•		
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
1,1 Dichloroethylene	0.415		mg/Kg	EPA 8010			08/24	JLE
1,1 Dichloroethane	0.020	U	ng/Kg	EPA 8010		08/21		JLE
Chloroform	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/21		JLE
1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Trichloroethylene	0.504		mg/Kg	EPA 8010		08/21		JLE
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Chlorobenzene	0.452		mg/Kg	EPA 8010		08/21		JLE
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21		JLE
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21		JLE
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21		JLE
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Chloromethane	0.020	Ü	mg/Kg	EPA 8010		08/21		JLE
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21		JLE
Chloroethane	0.020	ប	mg/Kg	EPA 8010		08/21		JLE



ENVIRONMENTAL LABORATORY SERVICES



Chemlab Ref.# :93.4219-2 Client Sample ID :BTR SS13 SHatrix :SOIL		5633 B STREET ANCHORAGE, AK 99516 TEL: (907) 562-2340 FAX: (907) 561-5301					
1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020 0.020	U U	ng/Kg ng/Kg ng/Kg ng/Kg	EPA EPA	8010 8010 8010 8010	08/21 08/24 08/21 08/24 08/21 08/24 08/21 08/24	л л л л
PCBs in Soil	0.422 1262		mg/Kg	EPA	8080	08/21 08/23	NF

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable
NA = Not Analyzed

LT = Less Than



^{*} See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-3

Client Sample ID :BTR SS13 S02 SPIKE DUPLICATE

Matrix

:SOIL

RUSH Order :69831

Report Completed :08/30/93

Collected :08/18/93 @ 13:46 hrs

Received :08/20/93 @ 11:30 hrs Technical Director: STEPHEN C. FDE Released By : STEPHEN C. FDE

5**633 8 STREET** 

TEL: (907) 562-2343

FAX: (907) 561-5301

ANCHORAGE, AK 99518

Client Name Ordered By

Project Name

:ICF KAISER ENGINEERING :RAY MORRIS

:DEW LINE :BARTER

Project# PWSID

:UA

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. SEE QC SUMMARY FOR SPIKE RECOVERIES AND RPD VALVES.

	Parameter	R <b>es</b> ults	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Percent Solids	93.9		¥	SM17 2540G			08/21	MDC
	Hydrocarbons EPH	112		mg/Kg	3510/3550/8100M		08/21	08/26	JBE
	ime c pome								
	VPH & BTEX	0.36		~-	EPA 8015M/8020				
	Hydrocarbons VPH	9.36		mg∕Kg	EPA 5030/8015m		08/21	08/25	WLS
	Benzene	0.431		mg/Kg	EPA 8020		08/21	08/24	JLB
	Toluene	0.434		mg/Kg	EPA 8020			08/24	JLE
	Ethylbenzene	0.020	U	mg/Kg	EPA 8020			08/24	JLE
1	p&m Xylene	0.020	U	mg/Kg	EPA 8020			08/24	JLB
	o-Xylene	0.020	U	mg/Kg	EPA 8020			08/24	JLB
	Walanaanad Walandla On							•	
	Halogenated Volatile Or	0 020			EPA 8010				
	Methylene Chloride	0.020	U	mg/Kg	EPA 8010			08/24	JLB
	1,1 Dichloroethylene	0.394	• •	mg/Kg	EPA 8010			08/24	JLB
	1,1 Dichloroethane Chloroform	0.020	U	mg/Kg	EPA 8010			08/24	JLB
	Carbontetrachloride	0.020 0.020	U U	mg/Kg	EPA 8010			08/24	JLB
	1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010			08/24	JLB
	Trichloroethylene	0.490	U	mg/Kg	EPA 8010			08/24	JLB
	1.1.2 Trichloroethane	0.020	u	mg/Kg	EPA 8010			08/24	JLB
	Dibromochloromethane	0.020	Ü	mg/Kg	EPA 8010			08/24	JLB
	Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010			08/24	JLB
	Chlorobenzene	0.020	U	mg/Kg mg/Ka	EPA 8010 EPA 8010			08/24	JLB
	Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8010			08/24	JLB
	Trans12Dichloroethylene	0.020	บ	mg/Kg	EPA 8010			08/24	JLB
	1.2 Dichloroethane	0.020	บ	mg/Kg	EPA 8010			08/24 08/24	JLB JLB
	1,1,1 Trichoroethane	0.020	บ	mg/Kg	EPA 8010			08/24	JLB
	Bromodichloromethane	0.020	Ü	mg/Kg	EPA 8010			08/24	JLB
	Trans1,3Dichloropropene	0.020	บั	mg/Kg	EPA 8010			08/24	JLB
	cis-1,3-Dichloropropene	0.020	Ü	mg/Kg	EPA 8010			08/24	JLB
	Bromoform	0.020	Ü	mg/Kg	EPA 8010			08/24	JLB
	1122-Tetrachloroethane	0.020	ŭ	mg/Kg	EPA 8010			08/24	JLB
	Chloromethane	0.020	Ü	mg/Kg	EPA 8010			08/24	JLB
	Bromoethane	0.020	Ŭ	mg/Kg	EPA 8010			08/24	JLB
	Vinyl Chloride	0.020	Ŭ	mg/Kg	EPA 8010			08/24	JLB
	Chloroethane	0.020	Ü	mg/Kg	EPA 8010			08/24	JLB
1	7			J 3			30, 21	, - 1	



ENVIRONMENTAL LABORATORY SERVICES

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G-1-1-5 D-5 # 02 1210 0		REP(	ORT of A	analysis 🞾		5633 B STREET	
Chemlab Ref.# :93.4219-3 Client Sample ID :BTR SS13 S02 Matrix :SOIL	SPIKE	DUP	LICATE			ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301	
1,4 Dichlorobenzene	0.020	บ	mg/Kg	EPA	8010	08/21 08/24 JL	
2-Chloroethylvinylether	0.020	U	mg/Kg	EPA	8010	08/21 08/24 JL	
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA	8010	08/21 08/24 JL:	
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA	8010	08/21 08/24 JL:	
PCBs in Soil	0.419 1262		mg/Kg	EPA	8080	08/21 08/23 NR	

* See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



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#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Lab Ref.# Client Sample ID :BTR SS13 S03

:93.4219-5

Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2340 FAX: (907) 561-530

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name

Project# PWSID

:UA

:RAY MORRIS

:DEW LINE :BARTER

RUSH Order :69831

Report Completed Collected

Received

:08/30/93 :08/18/93

@ 14:06 hr :08/20/93 @ 11:30 hr

Technical Director: STEPHEN/C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

OC Parameter Allowable Ext. Anal Results Qual Units Method Limits Date Date Ini Percent Solids 92.3 ŧ SM17 2540G Hydrocarbons EPH 08/21 ME 1290 D mg/Kg 3510/3550/8100H 08/21 08/25 JE VPH & BTEX EPA 8015M/8020 Hydrocarbons VPH 0.400 U mg/Kg EPA 5030/8015m 08/21 08/25 WL Benzene 0.020 U mg/Kg EPA 8020 Toluene 08/21 08/23 JL 0.020 U ng/Kg EPA 8020 **E**bylbenzene 08/21 08/23 0.020 JĽ U mg/Kg EPA 8020 Xylene 08/21 08/23 0.020 JL U mg/Kq EPA 8020 **X**ylene 08/21 08/23 JL 0.020 U ng/Kg EPA 8020 08/21 08/23 JL Halogenated Volatile Or EPA 8010 Methylene Chloride 0.020 U mg/Kq EPA 8010 1,1 Dichloroethylene 08/21 08/23 JL 0.020 U mg/Kg EPA 8010 1,1 Dichloroethane 08/21 08/23 JĽ: 0.020 U mg/Kg EPA 8010 Chloroform 08/21 08/23 JL: 0.020 U mg/Kg EPA 8010 Carbontetrachloride 08/21 08/23 JL 0.020 U mg/Kg EPA 8010 1, 2 Dichloropropane 08/21 08/23 JL: 0.020 II mg/Kg **EPA** 8010 Trichloroethylene 08/21 08/23 JL 0.020 U mg/Ka EPA 8010 1,1,2 Trichloroethane 08/21 08/23 JLI 0.020 U ma/Ka **EPA 8010** Dibromochloromethane 08/21 08/23 JLI 0.020 U mg/Kq EPA 8010 Tetrachloroethylene 08/21 08/23 JLI 0.020 U mg/Kg EPA 8010 Chlorobenzene 08/21 08/23 JLI 0.020 mg/Kg U **EPA** 8010 Trichlorofluoromethane 08/21 08/23 JLI 0.020 U mg/Kg EPA 8010 Trans12Dichloroethylene 08/21 08/23 JLI 0.020 mg/Kg **EPA** 8010 1.2 Dichloroethane 08/21 08/23 JLI 0.020 II mg/Kg EPA 8010 1,1,1 Trichoroethane 08/21 08/23 JLI 0.020 U mg/Ka EPA 8010 Bromodichloromethane 08/21 08/23 JLI 0.020 11 mg/Kg EPA 8010 08/21 08/23 Transi,3Dichloropropene JLI 0.020 U mg/Kq **EPA** 8010 cis-1,3-Dichloropropene 08/21 08/23 JLI 0.020 U mg/Kg **EPA** 8010 Bromoform 08/21 08/23 JLI 0.020 U mg/Kg EPA 8010 1122-Tetrachloroethane 08/21 08/23 0.020 JLI U mg/Kg EPA 8010 Chloromethane 08/21 08/23 JLI 0.020 U mg/Kg EPA 8010 Bromoethane 08/21 08/23 JLI 0.020 U mg/Kg EPA 8010 Vinyl Chloride 08/21 08/23 0.020 JLE U mg/Kg EPA 8010 08/21 08/23 Chloroethane 0.020 U JLE mg/Kg EPA 8010 08/21 08/23 JLI





## COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4219-5 Client Sample ID :BTR SS13 S Matrix :SOIL		REPO	RT of ANA	<b>LYS</b> IS	5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301			
1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020 0.020 0.020 0.020	บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/21 08/23 J 08/21 08/23 J 08/21 08/23 J 08/21 08/23 J			
PCBs in Soil	2.40 1254		mg/Kg	EPA 8080	08/21 08/24 NF			

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

:93.4219-6 Chemlab Ref.# Client Sample ID :BTR SS13 S04

:SOIL Matrix

Client Name :RAY MORRIS Ordered By : DEW LINE Project Name :BARTER Project#

:UA **PWSID** 

:ICF KAISER ENGINEERING RUSH Order

:69831 Report Completed :08/30/93

**:08/**18/93 @ 14:10 hrs Collected :08/20/93 @ 11:30 hrs Received

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. 310 MG/KG OF EPH

PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Percent Solids	92.8		8	SM17 2540G		00.434	08/21	MDU
	Hydrocarbons EPH	79 <b>7</b>	D	ng/Kg	3510/3550/8100M		08/21	08/25	JBH
	VPH & BTEX				EPA 8015H/8020		09/21	08/25	WLS
	Hydrocarbons VPH	3.65		mg/Kg	EPA 5030/8015m		06/21	06/23	MLO
	Benzene	0.020	U	mg/Kg	EPA 8020			08/23 08/23	JLB JLB
4	Toluene	0.033		mg/Kg	EPA 8020			08/23	JLB
	thylbenzene	0.035		mg/Kg	EPA 8020			08/23	JLB
	p&m Xylene	0.113		mg/Kg	EPA 8020			08/23	JLB
	o-Xylene	0.050		mg/Kg	EPA 8020		00/21	00/23	<b>0</b>
	Halogenated Volatile Or				EPA 8010		•		
	Methylene Chloride	0.020	U	mg/Kg	EPA 8010			08/23	JLB
	1,1 Dichloroethylene	0.020	ប	mg/Kg	EPA 8010			08/23	JLB
	1.1 Dichloroethane	0.020		mg/Kg	EPA 8010			08/23	JLB
	Chloroform	0.020	U	mg/Kg	EPA 8010			08/23	JLB
	Carbontetrachloride	0.020	U	mg/Kg	EPA 8010			08/23	JLB
	1, 2 Dichloropropane	0.020		mg/Kg	EPA 8010			08/23	JLB
	Trichloroethylene	0.020	U	ng/Kg	EPA 8010			08/23	JLB
	1,1,2 Trichloroethane	0.020		mg/Kg	EPA 8010			08/23	JLB
	Dibromochloromethane	0.020		ng/Kg	EPA 8010			08/23	JLB
	Tetrachloroethylene	0.020		mg/Kg	EPA 8010			08/23	JLB
	Chlorobenzene	0.020		mg/Kg	EPA 8010		08/21	08/23	JLB
	Trichlorofluoromethane	0.020		mg/Kg	EPA 8010			08/23	JLB JLB
	Trans12Dichloroethylene	0.020		mg/Kg	EPA 8010			08/23	JLB
	1,2 Dichloroethane	0.020		mg/Kg	EPA 8010			08/23	JLB
	1,1,1 Trichoroethane	0.020		mg/Kg	EPA 8010			08/23	JLB
	Bromodichloromethane	0.020		mg/Kg	EPA 8010		00/21	08/23	JLB
	Trans1,3Dichloropropene	0.020		mg/Kg	EPA 8010			08/23	JLB
	cis-1,3-Dichloropropene	0.020		mg/Kg	EPA 8010			08/23	JLB
	Bromoform	0.020		mg/Kg	EPA 8010			08/23	JLB
	1122-Tetrachloroethane	0.020		mg/Kg	EPA 8010		00/21	08/23	JLB
	Chloromethane	0.020		mg/Kg	EPA 8010		00/21	08/23	JLB
	Bromoeth <b>ane</b>	0.020		mg/Kg	EPA 8010		00/21	08/23	JLB
4	Vinyl Chloride	0.020		mg/Kg	EPA 8010		00/21	08/23 08/23	JLB
1	thloroethane	0.020	U 0	mg/Kg	EPA 8010		00/21	. 00/23	وسان



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS :93.4219-6 Chemlab Ref. # Client Sample ID :BTR SS13 S04

:SOIL Matrix

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

1,4 Dichlorobenzene		U	mg/Kg	EPA 8010	08/21 08/23 Л	
2-Chloroethylvinylether 1,3-Dichlorobenzene	0.020	U U	ng/Kg ng/Kg ng/Ka	EPA 8010 EPA 8010 EPA 8010	08/21 08/23 JL 08/21 08/23 JL 08/21 08/23 JL	
1,2-Dichlorobenzene	0.020 0.316	U	mg/Kg	EPA 8080	08/21 08/24 NR	
PCBs in Soil	1254	U	ma) va	EAR 0000	00/21 00/24 MM	

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than



See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4616-10 Client Sample ID :BTR-SS13-2S05

Matrix

:SOIL

Client Name

:ICF KAISER ENGINEERING

Project Name Project#

Ordered By

PWSID

:RAY MORRIS

:DEW LINE :BARTER

:UA

WORK Order

Report Completed :10/28/93

Collected Received

:09/02/93

:70612

@ 13:35 hrs :09/04/93 @ 11:00 hrs

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.070	Ü	mg/Kg	EPA 8260		00/07	00./30	1884
	Bromobenzene	0.070	U	mg/Kg	EPA 8260			09/29 09/29	KWM
	Bromochloromethane	0.070	U	mg/Kg	EPA 8260			09/29	KWM
	Bromodichloromethane	0.070	Ü	mg/Kg	EPA 8260			09/29	KWM
	Bromoform	0.070	U	mg/Kg	EPA 8260		09/07		KWM KWM
	Bromomethane	0.070	U	mg/Kg	EPA 8260			09/29	KWM
	n-Butylbenzene	0.070	Ü	mg/Kg	EPA 8260		09/07		
	sec-Butylbenzene	0.070	U	mg/Kg	EPA 8260		09/07		KWM
_	tert-Butylbenzne	0.070	Ū	mg/Kg	EPA 8260		09/07		KWM
	Carbon Tetrachloride	0.070	Ü	mg/Kg	EPA 8260		09/07		KWM
	Chlorobenzene	0.070	Ü	mg/Kg	EPA 8260		09/07		KWM
	Chloroethane	0.070	U	mg/Kg	EPA 8260		09/07		KWM
	Chloroform	0.070	U	mg/Kg	EPA 8260		09/07		KWM
	Chloromethane	0.070	U	mg/Kg	EPA 8260		09/07		KWH
	2-Chlorotoluene	0.070	U	mg/Kg	EPA 8260		09/07		KWM KWM
	4-Chlorotoluene	0.070	Ü	mg/Kg	EPA 8260		09/07		
	Dibromochloromethane	0.070	U	mg/Kg	EPA 8260		09/07		KWM
	12Dibromo3Chloropropane	0.070	Ū	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dibromoethane	0.070	Ū	mg/Kg	EPA 8260		09/07		KWM
	Dibromomethane	0.070	Ü	mg/Kg	EPA 8260				KWM
	1,2-Dichlorobenzene	0.070	Ü	mg/Kg	EPA 8260		09/07 09/07		KWM
	1,3-Dichlorobenzene	0.070	Ū	mg/Kg	EPA 8260		09/07		K <b>WM</b> K <b>WM</b>
	1,4-Dichlorobenzene	0.070	Ü	mg/Kg	EPA 8260		09/07		KWM
	Dichlorodifluoromethane	0.070	U	mg/Kg	EPA 8260		09/07		KWM
	1,1-Dichloroethane	0.070	U	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dichloroethane	0.070		mg/Kg	EPA 8260		09/07		KWM
	1,1-Dichloroethene	0.070		mg/Kg	EPA 8260		09/07		KWM
	cis-1,2-Dichloroethene	0.070		mg/Kg	EPA 8260		09/07		KWM
	trans1,2-Dichloroethene	0.070		mg/Kg	EPA 8260		09/07		KWM
	1,2-Dichloropropane	0.070		mg/Kg	EPA 8260		09/07		KWM
	1.3-Dichloropropane	0.070		mg/Kg	EPA 8260		09/07		KWM
	2,2-Dichloropropane	0.070		mg/Kg	EPA 8260		09/07		KWM
	1,1-Dichloropropene	0.070		mg/Kg	EPA 8260		09/07		KWM
	Ethylbenzene	0.070		mg/Kg	EPA 8260		09/07		KWM
	Hexachlorobutadiene	0.070		mg/Kg	EPA 8260		09/07		KWM
	Isopropylbenzene	0.070		mg/Kg	EPA 8260		09/07		KWM
	p-Isopropyltoluene	0.111		mg/Kg	EPA 8260		09/07		KWM
							- 2, 0,		7/1411



**ENVIRONMENTAL LABORATORY SERVICES** 

ACE INCO REPORT OF ANALYSIS

Chemlab Ref.# :93.4616-10 Client Sample ID :BTR-SS13-2S05

Matrix :SOIL

Of ANALYSIS

5633 B STREET

ANCHORAGE, AK 9951

TEL: (907) 562-2343

FAX: (907) 561-5301

.5011						•	····. (307) 30	11-3301
Methylene Chloride	0.070	U	mg/Kg	EPA	8260	09/07	09/29	KWM
Napthalene	0.070	U	mg/Kg	EPA	8260		09/29	KWM
n-Propylbenzene	0.070	U	mg/Kg	EPA	8260		09/29	KWM
Styrene	0.070	U	mg/Kg	EPA	8260		09/29	KWM
1112-Tetrachloroethane	0.070	U	mg/Kg	EPA	8260		09/29	KWM
1122-Tetrachloroethane	0 <b>.0</b> 70	U	mg/Kg	EPA	8260		09/29	KWM
Tetrachloroethene	0.070	U	mg/Kg	EPA	8260		09/29	KWM
Toluene	0.070	U	mg/Kg	EPA	8260		09/29	KWM
1,2,3-Trichlorobenzene	0.070	U	mg/Kg	EPA	8260		09/29	KWM
1,2,4-Trichlorobenzene	0.070	U	mg/Kg	EPA	8260		09/29	KWM
1,1,1-Trichloroethane	0.070	U	mg/Kg	EPA	8260		09/29	KWM
1,1,2-Trichloroethane	0 <b>.0</b> 70	U	mg/Kg		8260	09/07		KWM
Trichloroethene	0.070	U	mg/Kg		8260		09/29	KWM
Trichlorofluoromethane	0.070	U	mg/Kg		8260	09/07		KWM
1,2,3-Trichloropropane	0.070	U	mg/Kg		8260	09/07		KWM
1,2,4-Trimethylbenzene	0.070	Ū	mg/Kg		8260	09/07		KWM
1,3,5-Trimethylbenzene	0.070	U	mg/Kg		8260	09/07		KWM
Vinyl Chloride	0.070	Ū	mg/Kg		8260	09/07		KWM
p+m-Xylene	0.070	Ü	mg/Kg		8260	09/07		KWH
o-Xylene	0.070	Ū	mg/Kg		8260	09/07		KWM
						03/01	0 37 23	1/411

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4616-12 Client Sample ID :BTR-SS13-2S06

Matrix

:SOIL

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS

Project#

:DEW LINE :BARTER

PWSID

:UA

WORK Order

Report Completed :10/28/93 Collected

:09/02/93

:70612

@ 14:00 hrs. :09/04/93 @ 11:00 hrs.

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Received Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

 Parameter	R <b>esu</b> lts	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Da <b>te</b>	Init
Percent Solids	8 <b>9.</b> 9		<b>-</b>	SM17 2540G			09/07	EAL
Hydrocarbons EPH	4.00	U	mg/Kg	3510/3550/8100M		10/06	10/07	JBH
Hydrocarbons VPH	0.400	U	mg/Kg	EPA 5030/8015M			09/09	WLS
						0 3 / 0 /	0 3/ 0 3	MLS
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MC <b>M</b>
Bromobenzene	0.020	Ü	mg/Kg	EPA 8260		09/07	09/23	HCH HCH
Bromochloromethane	0.020	Ü	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Bromoform	0.020	U	mg/Kg	EPA 8260		09/07	03/23	HCM
Bromomethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	HCH
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07	00/23	
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/07		MCM MCM
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/07		HCH
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07		HCH
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		HCM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07		HCH
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07		HCH HCM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07		MCM MCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07		MCM MCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07		HCH
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		HCH
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		HCH
1.4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		HC <b>H</b> HC <b>H</b>
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07		HCH
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
cis-1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		09/07		HCH
trans1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		09/07		
1,2-Dichloropropane	0.020		mg/Kg	EPA 8260		09/07		MC <b>M</b> MC <b>M</b>
1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		09/07		HCM
2,2-Dichloropropane	0.020		mg/Kg	EPA 8260		09/07		
 1,1-Dichloropropene	0.020		mg/Kg	EPA 8260		09/07		MCM
			3,			03/01	0 3/ 23	MCM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-12 Client Sample ID :BTR-SS13-2S06

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

Matrix :SO	OIL					F	AX: (907) 561	1-5301
Ethylbenzene	0.020	U	mg/Kg		8260	09/07	09/23	MCM
Hexachlorobutadie	ne 0.020	U	m <b>g/K</b> g	EPA	8260	09/07	09/23	MCH
Isopropylbenzene	0.020	U	mg/Kg		8260		09/23	MCM
p-Isopropyltoluene	e 0.020	U	mg/Kg		8260		09/23	MCH
Methylene Chloride	e 0.020	U	mg/Kg		8260	09/07	09/23	MCM
Napthalene	0.020	U	mg/Kg		8260	09/07	09/23	HCH
n-Propylbenzene	0.020	U	mg/Kg		8260		09/23	MCM
Styrene	0.020	U	m <b>g∕</b> Kg		8260	•	09/23	MCM
1112-Tetrachloroe	thane 0.020	U	mg/Kg		8260		09/23	MCM
1122-Tetrachloroet	thane 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
Tetrachloroethene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
Toluene	0.020	Ü	mg/Kg	EPA	8260	09/07	09/23	MCM
1,2,3-Trichlorober	nzene 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1,2,4-Trichlorober	nzene 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1.1.1-Trichloroeth	nane 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1.1.2-Trichloroeth	nane 0.020	Ü	mg/Kg	EPA	8260	09/07	09/23	MCM
Trichloroethene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
Trichlorofluorome	thane 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1,2,3-Trichloropro	opane 0.020	Ü	mg/Kg	EPA	8260	09/07	09/23	MCM
1,2,4-Trimethylber	•	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1,3,5-Trimethylber	nzene 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCH
Vinyl Chloride	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
p+m-Xylene	0.020	U	mg/Kg		8260	09/07	09/23	M
o-Xylene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	i.

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

:93.4616-11

chemlab Ref.# Client Sample ID :BTR-SS13-2S07

Matrix

PWSID

:SOIL

REPORT of ANALYSIS

**5633 B STREET** ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS

Project Name Project#

:DEW LINE :BARTER :UA

WORK Order

:70612

Report Completed :10/28/93 Collected

:09/02/93

@ 14:15 hrs

Received

:09/04/93

@ 11:00 hrs

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.020	IJ	m <b>g/K</b> g	EPA 8260				
	Bromobenzene	0.020	Ü	mg/Kg	EPA 8260		09/07	09/29	KWM
	Bromochloromethane	0.020	Ü	mg/Kg	EPA 8260		09/07	09/29	KWM
	Bromodichloromethane	0.020	Ü	mg/Kg	EPA 8260			09/29	KWM
	Bromoform	0.020	Ü	mg/Kg	EPA 8260		09/07	09/29	KWM
	Bromomethane	0.020	Ū	mg/Kg	EPA 8260		09/07		KWM
	n-Butylbenzene	0.020	Ŭ	mg/Kg	EPA 8260		09/07		KWM
	sec-Butylbenzene	0.020	ŭ	mg/Kg	EPA 8260		09/07	09/29	KWM
_	tert-Butylbenzne	0.020	Ü	mg/Kg	EPA 8260		09/07		KWM
	Carbon Tetrachloride	0.020	Ü	mg/Kg	EPA 8260		09/07		KWM
1	Chlorobenzene	0.020	Ü	mg/Kg	EPA 8260		09/07	09/29	KWM
	Chloroethane	0.020	Ü	mg/Kg	EPA 8260		09/07		KWM
	Chloroform	0.020	Ü	mg/Kg	EPA 8260		09/07	09/29	KWM
	Chloromethane	0.020	Ŭ	mg/Kg	EPA 8260		09/07		KWM
	2-Chlorotoluene	0.020	ŭ	mg/Kg	EPA 8260		09/07		KWM
	4-Chlorotoluene	0.020	Ü	mg/Kg			09/07		KWM
	Dibromochloromethane	0.020	ប	mg/Kg	EPA 8260		09/07		KWM
	12Dibromo3Chloropropane	0.020	Ü	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dibromoethane	0.020	Ü	mg/Kg	EPA 8260		09/07		KWM
	Dibromomethane	0.020	IJ	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		KWM
	1,3-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		09/07	09/29	KWH
	1,4-Dichlorobenzene	0.020	บ	mg/Kg	EPA 8260		09/07	09/29	KWM
	Dichlorodifluoromethane	0.020	Ü	mg/Kg	EPA 8260		09/07		KWM
	1,1-Dichloroethane	0.020	_	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dichloroethane	0.020	-	mg/Kg	EPA 8260 EPA 8260		09/07		KWM
	1,1-Dichloroethene	0.020	_	mg/Kg	EPA 8260		09/07		KWM
	cis-1,2-Dichloroethene	0.020	-	mg/Kg	EPA 8260		09/07		KWM
	trans1,2-Dichloroethene	0.020	_	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dichloropropane	0.020	_	mg/Kg	EPA 8260		09/07		KWM
	1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		09/07		KWM
	2,2-Dichloropropane	0.020		mg/Kg	EPA 8260		09/07		KWH
	1,1-Dichloropropene	0.020	-	mg/Kg			09/07		KWM
	Ethylbenzene	0.020	_	mg/Kg	EPA 8260		09/07	09/29	KWM
	Hexachlorobutadiene	0.020	-	mg/Kg	EPA 8260		09/07		KWM
	Isopropylbenzene	0.020	_	mg/Kg	EPA 8260		09/07 (		KWM
	p-Isopropyltoluene	0.020	_	mg/Kg	EPA 8260		09/07 (		KWM
		3.020	J	<b>3</b> \ 1\d	EPA 8260	ı	09/07 (	19/29	KWM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-11

Client Sample ID :BTR-SS13-2S07

Matrix SOII

REPORT of ANALYSIS

5633 B STREET
ANCHORAGE. AK 99518

FAX: (907) 562-2343

FAX: (907) 561-5301

Matrix :SOIL 09/07 09/29 Methylene Chloride 0.020 U mg/Kg EPA 8260 KWM 0.020 EPA 8260 09/07 09/29 KWM Napthalene U mq/Kq 0.020 EPA 8260 09/07 09/29 n-Propylbenzene KWM U mg/Kg 0.020 EPA 8260 09/07 09/29 KWM U Styrene mg/Kg 0.020 09/07 09/29 1112-Tetrachloroethane EPA 8260 KWM U mq/Kq 1122-Tetrachloroethane 0.020 EPA 8260 U mg/Kg 09/07 09/29 KWM Tetrachloroethene 0.020 U mq/Ka EPA 8260 09/07 09/29 KWM 0.020 **EPA** 8260 09/07 09/29 Toluene U mq/Kq KWM 1,2,3-Trichlorobenzene 0.020 U EPA 8260 09/07 09/29 mg/Kg KWM 1,2,4-Trichlorobenzene 0.020 U EPA 8260 09/07 09/29 mg/Kg KWM U EPA 8260 1.1.1-Trichloroethane 0.020 mq/Kq 09/07 09/29 KWM 1,1,2-Trichloroethane 0.020 U EPA 8260 09/07 09/29 mg/Kg KWM Trichloroethene 0.020 EPA 8260 09/07 09/29 U mg/Kg KWM Trichlorofluoromethane 09/07 09/29 EPA 8260 0.020 U mg/Kg KWM 1.2.3-Trichloropropane 0.020 U ma/Ka EPA 8260 09/07 09/29 KWM 1,2,4-Trimethylbenzene EPA 8260 0.020 U mq/Kq 09/07 09/29 KWM 1,3,5-Trimethylbenzene 0.020 U mg/Kg EPA 8260 09/07 09/29 KWM 09/07 09/29 Vinyl Chloride 0.020 U mg/Kg EPA 8260 KWM p+m-Xylene 0.020 U EPA 8260 mg/Kg 09/07 09/29 KWM o-Xylene 0.020 EPA 8260 09/07 09/29 U mg/Kg KWM

* See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref. *

193.4216-5

Client Sample ID :BTR SS13 SD01

Matrix

:SOIL

:ICF KAISER ENGINEERING

Client Name Ordered By Project Name

:RAY MORRIS DEN LINE

Project* PWSID

BARTER

:UA

RUSH Order Report Completed 108/30/93

Collected Received

**8** 12:00 :08/18/93

:08/20/93 @ 11:30 hr:

5633 B STREET

TEL: (907) 562-2343

FAX: (907) 561-5301

ANCHORAGE, AK 99518

Technical Director: STEPHEN, C. EDE

Released By :

:69828

EPH PATTERN Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M. IS NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

18 MUI	CONSISTENT WITH ON	allein Conment				
Parameter	QC Results Qual	Units		its Date	Anal Date	Ini
 Percent Solids Hydrocarbons EPH	84.0 770 D	ag/Kg		8FM 94 08/22	08/22 08/24	ÌB R
VPH & BTEX Hydrocarbons VPH	0.653	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/25	WE
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.025 U 0.025 U 0.028 0.179 0.114	ng/Kg ng/Kg ng/Kg ng/Kg ng/Kg	EPA 8020 EPA 8020 (N)-K.1 EPA 8020 EPA 8020	08/21 08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23	
PCBs in Soil	0.112 1254	mg/Kg	EPA 8080	08/2	1 08/24	NE

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STRE ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

chemlab Ref.#

:93.4212-2

Client Sample ID :BTR SS13 SD01

Matrix

:SOIL

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project# PWSID

:BARTER

:UA

WORK Order

:69840

Report Completed :10/08/93 Collected

:08/18/93

@ 12:00 hrs. @ 11:30 hrs.

Received **:08/**20/93 Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromobenzene	0.020	บ	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromoform	0.020	บ	mg/Kg	EPA 8260		08/24	09/01	KWM
Bromomethane	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/24	09/01	KWM
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260			09/01	
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/24	09/01	
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260			09/01	KWM
Chlorobenzene	0.020	U	mg/Kg	EPA 8260			09/01	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260			09/01	KWM
Chloroform	0.020	U	mg/Kg	EPA 8260			09/01	KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		•	09/01	KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260			09/01	KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260			09/01	KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260			09/01	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/24	•	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/24		KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/24		KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/24		KWM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/24		KWM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/24		KWM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/24		KWM
1,1-Dichloropropene Ethylbenzene	0.020 0.020	U	_, _	EPA 8260		08/24		KWM
Hexachlorobutadiene	0.020	U U	mg/Kg	EPA 8260		08/24		KWM
Isopropylbenzene	0.020		mg/Kg	EPA 8260		08/24		KWM
p-Isopropyltoluene	0.020	U	mg/Kg	EPA 8260		08/24		
b roobroblicornene	0.020	U	mg/Kg	EPA 8260		08/24	03/01	K



ENVIRONMENTAL LABORATORY SERVICES

5-70 E 1908		Librar	ODM C				
hemlab Ref.# :93.4212-2		KEP	ORT of AN	ALYSIS		5633 B S1	TREET
Client Sample ID :BTR SS13 S					ANCHO	RAGE, AK	99518
Matrix :SOIL	D01					L: (907) 56; X: (907) 56;	
Hactix :SULL					100	A. (307) 30	1-3301
Methylene Chloride	0.020	U	ma/Va	EDN 0260	00/04	00 /01	
Napthalene	0.020	Ü	mg/Kg	EPA 8260	08/24		KWM
n-Propylbenzene	0.020	Ü	mg/Kg	EPA 8260	08/24		KWM
Styrene	0.020	Ü	mg/Kg	EPA 8260	08/24		KWM
1112-Tetrachloroethane	0.020		mg/Kg	EPA 8260	08/24		KWM
		U	mg/Kg	EPA 8260	08/24 (		KWM
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8260	08/24		KWM
Tetrachloroethene	0.020	U	mg/Kg	EPA 8260	08/24		KWM
Toluene	0.029		mg/Kg	EPA 8260	08/24 (		KWM
1,2,3-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/24	09/01	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/24 (	09/01	KWM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/24 (	09/01	KWM
1,1,2-Trichloroethane	0.020	U	mg∕Kg	EPA 8260	08/24 (		KWM
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/24 (		KWM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/24 (		KWM
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/24 (		KWM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/24 (		KWM
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08724 (		KWM
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/24 (		KWM
p+m-Xylene	0.029		mg/Kg	EPA 8260	08/24 (	-	KWM
o-Xylene	0.023		mg/Kg	EPA 8260	08/24 (		KWM
			JJ	2 0200	00,21	,,,,,,	14411
Semivolatile, Organics				EPA 8270			
Phenol	1.00	U	mg/Kg	EPA 8270	08/31 (	19/07	GV
bis(2-Chloroethyl)ether	1.00	U	mg/Kg	EPA 8270	08/31 (		GV
2-Chlorophenol	1.00	U	mg/Kg	EPA 8270	08/31 0		GV
1,3-Dichlorobenzene	1.00	U	mg/Kg	EPA 8270	08/31 (		GV
1,4-Dichlorobenzene	1.00	Ū	mg/Kg	EPA 8270	08/31 (		GV
Benzyl Alcohol	1.00	Ū	mg/Kg	EPA 8270	08/31 0		GV
1,2-Dichlorobenzene	1.00	Ū	mg/Kg	EPA 8270	08/31 0		GV
2-Methylphenol	1.00	Ü	mg/Kg	EPA 8270	08/31 0		GV
bis(2-Chloroisopropyl)e	1.00	Ū	mg/Kg	EPA 8270			
4-Methylphenol	1.00	บั	mg/Kg	EPA 8270	08/31 0		GV
n-Nitroso-di-n-Propylam	1.00	Ü	mg/Kg	EPA 8270	08/31 0		GV
Hexachloroethane	1.00	Ü	mg/Kg		08/31 0		GV
Nitrobenzene	1.00	Ü	mg/Kg	EPA 8270	08/31 0		GV
Isophorone	1.00	Ü		EPA 8270	08/31 0		GV
2-Nitrophenol	1.00	บ	mg/Kg	EPA 8270	08/31 0		GV
2,4-Dimethylphenol	1.00	Ü	mg/Kg	EPA 8270	08/31 0		GV
Benzoic Acid	1.00	Ü	mg/Kg	EPA 8270	08/31 0		GV
bis(2-Chloroethoxy)Meth			mg/Kg	EPA 8270	08/31 0		GV
2,4-Dichlorophenol	1.00 1.00	U	mg/Kg	EPA 8270	08/31 0		GV
1,2,4-Trichlorobenzene		U	mg/Kg	EPA 8270	08/31 0		GV
Naphthalene	1.00	U	mg/Kg	EPA 8270	08/31 0		GV
4-Chloroaniline	1.00	Ü	mg/Kg	EPA 8270	08/31 0		GV
	1.00	U	mg/Kg	EPA 8270	08/31 0		GV
Hexachlorobutadiene	1.00	U	mg/Kg	EPA 8270	08/31 0		GV
4-Chloro-3-Methylphenol	1.00	U	mg/Kg	EPA 8270	08/31 0		ĢΨ
2-Methylnaphthalene	1.00	U	mg/Kg	EPA 8270	08/31 0	9/07	GV
Hexachlorocyclopentadie	1.00	U	mg/Kg	EPA 8270	08/31 0	9/07	GV
2,4,6-Trichlorophenol	1.00	U	mg/Kg	EPA 8270	08/31 0		GV
2,4,5-Trichlorophenol	1.00	U	mg/Kg	EPA 8270	08/31 0		GV
2-Chloronaphthalene	1.00	U	mg/Kg	EPA 8270	08/31 0		GV
					•		



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

SINGE 1908		REPO	RT of AN	ALYSIS			5633 B STI	DEE
Chemlab Ref.# :93.4212-2 Client Sample ID :BTR SS13 SD01 Matrix :SOIL						TI	DRAGE, <b>AK 9</b> EL: (907) <b>562</b> AX: (907) <b>561</b>	9 <b>9</b> 518 • <b>23</b> 43
2-Nitroaniline	1.00	U	mg/K <b>g</b>	EPA 8270			09/07	GV
Dimethylphthalate	1.00	U	mg/Kg	EPA 8270			09/07	GV
Acenaphthylene	1.00	U	mg/Kg	EPA 8270			09/07	GV
2,6-Dinitrotoluene	1.00	U	mg/Kg	EPA 8270			09/07	GV
3-Nitroaniline	1.00	U	mg/Kg	EPA 8270			09/07	GV
Acenaphthene	1.00	U	mg/Kg	EPA 8270			09/07	G۷
2,4-Dinitrophenol	1.00	U	mg/Kg	EPA 8270		08/31	09/07	GV
4-Nitrophenol	1.00	U	mg/Kg	EPA 8270			09/07	GV
Dibenzofuran	1.00	U	mg/Kg	EPA 8270			09/07	GV
2,4-Dinitrotoluene	1.00	U	mg/Kg	EPA 8270			09/07	GV
Diethylphthalate	1.00	U	mg/Kg	EPA 8270			09/07	GV
4-Chlorophenyl-Phenylet	1.00	U	mg/Kg	EPA 8270			09/07	GV
Fluorene	1.00	U	mg/Kg	EPA 8270			09/07	GV
4-Nitroaniline	1.00	U	mg/Kg	EPA 8270			09/07	GV
4,6-Dinitro-2-Methylphe	1.00	U	mg/Kg	EPA 8270			09/07	GV
n-Nitrosodiphenylamine	1.00	U	mg/Kg	EPA 8270			09/07	· GV
4-Bromophenyl-Phenyleth	1.00	U	mg/Kg	EPA 8270			09/07	GV
Hexachlorobenzene	1.00	บ	mg/Kg	EPA 8270		08/31	09/07	GV
Pentachlorophenol	1.00	U	mg/Kg	EPA 8270			09/07	GV
Phenanthrene	1.00	U	mg/Kg	EPA 8270			09/07	GV
Anthracene	1.00	U	mg/Kg	EPA 8270		08/31	09/07	GV
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270			09/07	GV
Fluoranthene	1.00	U	mg/Kg	EPA 8270			09/07	
Pyrene	1.00	Ü	mg/Kg	EPA 8270		08/31	09/07	CV
Butylbenzylphthalate	1.00	U	mg/Kg	EPA 8270		08/31	09/07	gv gv
3,3-Dichlorobenzidine	1.00	U	mg/Kg	EPA 8270			09/07	GV GV
Benzo(a)Anthracene	1.00	U	mg/Kg	EPA 8270			09/07	GV GV
Chrysene	1.00	U	mg/Kg	EPA 8270			09/07	GV GV
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270		08/31	09/07	GV
di-n-Octylphthalate	1.00	U	mg/Kg	EPA 8270		08/31	09/07	G <b>V</b>
Benzo(b)Fluoranthene	1.00	U	mg/Kg	EPA 8270		08/31	09/07	GV
Benzo(k)Fluoranthene	1.00	U	mg/Kg	EPA 8270		00/31	09/07 09/07	G∇
Benzo(a)Pyrene	1.00	U	mg/Kg	EPA 8270			09/07	GV
Indeno(1,2,3-cd)Pyrene	1.00	Ü	mg/Kg	EPA 8270			09/07	GV
Dibenz(a,h)Anthracene	1.00		mg/Kg	EPA 8270 EPA 8270		08/31	09/07	GV
Benzo(g,h,i)Perylene	1.00	U	mg/Kg			00/31	03,01	•
Sample Preparation				EPA 3050 Digest				
Total Metals Analysis				EPA	n/a			
ICP Screen, ICF	2900		mg/Kg	EPA 6010	11/4	08/24	08/25	DFL
Aluminum	53	11	mg/Kg	EPA 6010			08/25	DFL
Antimony	5.3	U U	mg/Kg	EPA 6010			08/25	DFL
Arsenic	23	U	mg/Kg	EPA 6010			08/25	DFL
Barium	2.7	U	mg/Kg	EPA 6010			08/25	DFL
Beryllium Codmium	2.7	U	mg/Kg	EPA 6010			08/25	DFL
Cadmium Calcium	5100		mg/Kg	EPA 6010			08/25	DFL
Chromium	11		mg/Kg	EPA 6010			08/25	DFL
Cobalt	5.3	u	mg/Kg	EPA 6010			08/25	DFL
Copper	7.5	-	mg/Kg	EPA 6010		08/24	08/25	PER.
Iron	8000		mg/Kg	EPA 6010		08/24	08/25	
ZEO(I								





ENVIRONMENTAL LABORATORY SERVICES

€ 1938		ļ	REPO	ORT of AN	ALYSIS			5633 B ST	
chemlab Ref.#	:93.4212-2							DRAGE, AK 9	
Client Sample ID	:BTR SS13 SD01							EL: (907) 562 AX: (907) 561	
Matrix	:SOIL						"	(557) 561	
Lead		33		mg/Kg	EPA	6010	08/24	-	DFL
Magnesium		2400		mg/Kg		6010	08/24	•	DFL
Manganese		56		mg/Kg		6010	08/24		DFL
Molybdenum		2.7	U	mg/Kg		6010	08/24		DFL
Nickel		6.6		mg/Kg		6010	08/24	08/25	DFL
Potassium		360		mg/Kg		6010	08/24	08/25	DFL
Selenium		53	ប	mg/Kg		6010	08/24	08/25	DFL
Silver		2.7	Ū	mg/Kg		6010	08/24	08/25	DFL
Sodium		38	-	mg/Kg		6010	08/24	-	DFL
Thallium		0.27	U	mg/Kg		7841	08/24	*	KAW
Vanadium		14	_	mg/Kg		6010	08/24	08/25	DFL
Zinc	•	500		mg/Kg		6010	08/24	08/25	DFL

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



**SGS** Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES



5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

#### REPORT of ANALYSIS

Chemiab Ref.# :93.4219-1 Client Sample ID :BTR SS13 SD02

Matrix :SOIL

:ICF KAISER ENGINEERING

Client Name RUSH Order :69831 Ordered By :RAY MORRIS Report Completed :08/30/93 :DEW LINE Project Name

Collected :08/18/93 @ 13:46 hr Project# :BARTER Received :08/20/93 0 11:30 hr

PWSID :UA Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN IS NOT

CONSISTENT WITH MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids	93.9		*	SM17 2540G			08/21	HD
Hydrocarbons EPH	36.5		mg/Kg	3510/3550/8100M		08/21	08/26	JB
VPH & BTEX				EPA 8015M/8020				
Hydrocarbons VPH	0.400	Ŭ	mg/Kg	EPA 5030/8015m		08/21	08/25	WL
Benzene	0.020	U	mg/Kg	EPA 8020		08/21	08/24	JL
Toluene	0.020	Ü	mg/Kg	EPA 8020			08/24	L
Ethylbenzene	0.020	Ū	mg/Kg	EPA 8020			08/24	元
p&m Xylene	0.020	Ū	mg/Kg	EPA 8020			08/24	JL
o-Xylene	0.020	Ü	mg/Kg	EPA 8020			08/24	JL
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JL
1,1 Dichloroethylene	0.020	Ū	mg/Kg	EPA 8010		08/21		JL
1,1 Dichloroethane	0.020	Ŭ	mg/Kg	EPA 8010		08/21		JL
Chloroform	0.020	Ü	mg/Kg	EPA 8010		08/21		JL
Carbontetrachloride	0.020	Ū	mg/Kg	EPA 8010		08/21		JL
1, 2 Dichloropropane	0.020	Ŭ	mg/Kg	EPA 8010		08/21		JL
Trichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21		JL
1,1,2 Trichloroethane	0.020	U	mg/Kg	EPA 8010		08/21		JL
Dibromochloromethane	0.020	U	mg/Kg	EPA 8010		08/21		JL
Tetrachloroethylene	0.020	U	mg/Kg	EPA 8010		08/21		JL
Chlorobenzene	0.020	U	mg/Kg	EPA 8010		08/21		JLI
Trichlorofluoromethane	0.020	Ü	mg/Kg	EPA 8010		08/21		JLI
Trans12Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/21		JLI
1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
1,1,1 Trichoroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
Bromodichloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Trans1,3Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLI
cis-1,3-Dichloropropene	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Bromoform	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Chloromethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE
Bromoethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	III
Vinyl Chloride	0.020	U	mg/Kg	EPA 8010		08/21	08/24	Æ
Chloroethane	0.020	U	mg/Kg	EPA 8010		08/21	08/24	JLE



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4219-1 ANCHORAGE, AK 99518 TEL: (907) 562-2343 Client Sample ID :BTR SS13 SD02 FAX: (907) 561-5301 Matrix :SOIL 1,4 Dichlorobenzene 0.020 U mg/Kg **EPA** 8010 08/21 08/24 JL 2-Chloroethylvinylether 0.020 U mg/Kg **EPA 8010** 08/21 08/24 JL 1,3-Dichlorobenzene 0.020 U mg/Kg **EPA 8010** 08/21 08/24 JL 1,2-Dichlorobenzene 0.020 U mg/Kg **EPA** 8010 08/21 08/24 JL PCBs in Soil 0.100 U mg/Kg **EPA 8080** 08/21 08/24 NR ----Aroclor

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

### REPORT of ANALYSIS

:93.4219-4 Chemlab Ref.# Client Sample ID :BTR SS13 SD03

Matrix

**PWSID** 

:SOIL

Client Name

Ordered By Project Name Project#

:RAY MORRIS :DEW LINE

:ICF KAISER ENGINEERING

:BARTER :UA

RUSH Order

:69831 :08/30/93

Report Completed Collected

@ 13:20 hr :08/18/93 :08/20/93 @ 11:30 hr

ICRCEY COUTH CAROLINA

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Received Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. 40.2 MG/KG OF EPH

PATTERN NOT CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Percent Solids Hydrocarbons EPH	92.3 51.4	<del></del>	% mg/Kg	SM17 2540G 3510/3550/8100M		08/21	08/21 08/26	JB JB
VPH & BTEX Hydrocarbons VPH	1.17		mg/Kg	EPA 8015H/8020 EPA 5030/8015m		•	08/25	WL
Benzene Toluene Ethylbenzene p&m Xylene	0.020 0.023 0.020 0.025	ប	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23	IL IL IL IL
o-Xylene Halogenated Volatile Or	0.020	U U	mg/Kg mg/Kg	EPA 8020 EPA 8010 EPA 8010		08/21	08/23	JL JL
Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform	0.020 0.020 0.020	U U U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/23 08/23 08/23 08/23	几 几 几
Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane	0.020 0.020 0.020 0.020	U U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/23 08/23 08/23 08/23	エルエル
Dibromochloromethane Tetrachloroethylene Chlorobenzene	0.020 0.020 0.020 0.020	U U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21	08/23 08/23 08/23	IL IL IL
Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethane 1,1,1 Trichoroethane	0.020 0.020 0.020	U (	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21	L 08/23 L 08/23 L 08/23 L 08/23	JL JL
Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene	0.020 0.020 0.020 0.020	บ ( บ (	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2: 08/2: 08/2:	1 08/23 1 08/23 1 08/23	JL JL JL
Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane	0.020 0.020 0.02	0 U 0 U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2 08/2	1 08/23 1 08/23 1 08/23 1 08/23	JL JL
Vinyl Chloride Chloroethane	0.02 0.02		mg/Kg mg/Kg	EPA 8010 EPA 8010			1 08/2	JL



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 9951

Chemlab Ref.# Client Sample ID :BTR SS13 SD03

:93.4219-4

Matrix

:SOIL

TEL: (907) 562-234: FAX: (907) 561-530

1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020 0.020	U mg/Kg U mg/Kg U mg/Kg U mg/Kg	EPA 8010 EPA 8010	08/21 08/23 J 08/21 08/23 J 08/21 08/23 J 08/21 08/23 J	Ī
PCBs in Soil	0.020	U mag∕Kg	EPA 8080	08/21 08/23 ห	F

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



Changed Site location SERVICES

2FB95 MY

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-2 Client Sample ID :BTR SD08 SD06 Matrix

:SOIL SS13

5633 B STREET ANCHORAGE, AK 99518 TEL (907) 562-2343 FAX (907) 561-5301

Client Name Ordered By Project Name

:ICF KAISER ENGINEERING

:RAY MORRIS :DEW LINE

Project# :BARTER PWSID :UA

RUSH Order

:69800

Report Completed

:08/25/93

Collected Received

:08/17/93 @ 11:25 hrs :08/19/93 @ 18:45 hrs

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M.

Parameter Results Qual Units Method Limits Date Date	
Percent Solids on o	- 11116
Hydrocarbons EPH 37.3 PG (VG 3510 (272)	1 MY
08/21 08/ 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/	2 JBH
VPH & BTEX Hydrocarbons VPH  4 45 EPA 8015M/8020	
74.71.) MCI / L/M 1790 CARA (A.A.)	
Daniel 108/21 08/	4 WLS
Toluene 0.220 U mg/Kg EPA 8020 08/21 08/	4 TFD
Ethylbenzene 0.020 U mg/Kg EPA 8020 08/21 09/	
Den Xylene 0.020 U mg/Kg EPA 8020 08/21 08/2	
0-Xylene 0.022 mg/kg EPA 8020 08/21 08/	
0.021 mg/Kg EPA 8020 08/21 08/21	4 JLB
Halogenated Volatile Or	- 022
Methylene Chloride 0 020 11 EPA 8010	
1,1 Dichloroethylene 0.020 II mg/kg EPA 8010 08/21 08/2	4 JLB
1,1 Dichloroethane 0.020 II mg/Kg EPA 8010 08/21 08/2	
Chloroform 0.020 U mg/kg EPA 8010 08/21 08/2	JLB
Carbontetrachloride 0.020 H mg/49 EPA 8010 08/21 08/2	
1, 2 Dichloropropane 0,020 H mg/45 EPA 8010 08/21 08/2	JLB
Trichloroethylene 0.020 ti mg/kg EPA 8010 08/21 08/2	JLB
1,1,2 Trichloroethane 0,020 tt mg/4 8010 08/21 08/2	
Dibromochloromethane 0.020 ti may the BPA 8010 08/21 08/2	
Tetrachloroethylene 0.020 II mg/kg EPA 8010 08/21 08/2	
Chlorobenzene 0.020 H == 0.00 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	
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11 distribution octayiene 0.020 U mg/kg FPA 8010	
1,2 Dichioroethane 0.020 U mg/kg FPA 8010 00/21 08/21	
Proposition 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Distribution of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the c	JLB
Cis 13 Dichioropropene 0.020 U mg/Kg EPA 8010 00/21 08/24	JLB
0.020 U mg/Kg FPA 8010	JLB
0.020 U mg/Kg FPA 8010	JLB
Childrig U.020 U mq/Ka FPA 8010	JLB
0.020 U mg/Kg EPA 8010	JLB JLB
Vipyl Chlorida 0.020 U mg/kg EPA 8010 08/21 08/24	JLB
Chloroethana 0.020 U mg/Kg EPA 8010 08/21 08/24	JLB
1.4 Dichloroborgens 0.020 U mg/Kg EPA 8010 08/21 08/21	JL.
1,4 Dichlorobenzene 0.020 U mg/Kg EPA 8010 08/21 08/24 08/24	JLB



Matrix

## COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

Chauges of location

25005 8MF

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

Chemlab Ref.#

2-Chloroethylvinylether

1,3-Dichlorobenzene

1,2-Dichlorobenzene

:93.4203-2 Client Sample ID :BTR SD08 SD06

:SOIL 5513

0.020 U mg/Kg EPA 8010 0.020 U mg/Kg EPA 8010 0.020 U mg/Kg **EPA 8010** 

08/21 08/24 JLB 08/21 08/24 JLB 08/21 08/24 JLB

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

NA = Not AnalyzedLT = Less Than GT = Greater Than

UA = Unavailable



ENVIRONMENTAL LABORATORY SERVICES

CHURCH STERVICES

REPORT OF AN

REPORT of ANALYSIS

5633 B STREE ANCHORAGE, AK 99518 TEL: (907) 582-2343 FAX (907) 561-5301

Chemlab Ref.# Client Sample ID :BTR SD06 SD07 Matrix

:93.4203-3

:SOIL \$513

:69800

Client Name

:ICF KAISER ENGINEERING :RAY MORRIS

RUSH Order :08/25/93 Report Completed

Ordered By Project Name Project#

:DEW LINE :BARTER

:08/17/93 @ 11:42 hrs Collected @ 18:45 hrs :08/19/93 Received

PWSID :UA Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	91.0 32.5		% mg/Kg	SM17 2540G 3510/3550/8100M		08/21	08/21 08/22	MY JBH
VPH & BTEX Hydrocarbons VPH	2.70		mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.025 0.025 0.025 0.025 0.025	U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020	,	08/21 08/21 08/21	08/24 08/24 08/24 08/24 08/24	JLB JLB JLB
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene	0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025	ט ט ט ט ט ט ט ט	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	08/24 08/24 08/24 08/24 08/24 08/24 08/24 08/24 08/24 08/24 08/24	JLB JLB JLB JLB JLB JLB JLB JLB JLB JLB
1,2 Dichloroethane 1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane Vinyl Chloride Chloroethane 1,4 Dichlorobenzene	0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025 0.025		mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	08/24 08/24 08/24 08/24 08/24 08/24 08/24 08/24 08/24 08/24	JLB JLB JLB JLB JLB JLB JLB JLB JLB JLB



ENVIRONMENTAL LABORATORY SERVICES

2 Feb 915 8MF

ab Ref.#

REPORT of ANALYSIS :93.4203-3

ent Sample ID :BTR SDOP SD07 Matrix

:50IL <u>\$</u>5B

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

2-Chloroethylvinylether

1,3-Dichlorobenzene 1,2-Dichlorobenzene

0.025 0.025 U

mg/Kg mg/Kg 0.025 U mg/Kg EPA 8010 EPA 8010

**EPA** 8010

08/21 08/24 08/21 08/24

JLB JLB

08/21 08/24 JLB

Sample Remarks Above

: undetected, Reported value is the practical quantification limit. : Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

200958W :93.4203-1

REPORT of ANALYSIS

5633 B STREE ANCHORAGE, AK 99511 TEL (907) 562-234:

FAX (907) 561-530

Matrix

Chemlab Ref.#

Client Sample ID :BTR -SD08 SD08 :SOIL \$5B

Client Name Ordered By

: ICF KAISER ENGINEERING

Project Name Project#

PWSID

:RAY MORRIS :DEW LINE :BARTER :UA

RUSH Order

**:69**800 Report Completed :08/30/93

Collected

**:08/17/93** @ 11:56 hı :08/19/93 @ 18:45 hi

Received Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. FINAL RESULTS.

Hydrocarbons EPH   115	Parameter Percent Solids	Results Qu	QC ual Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
### ### ##############################	Hydrocarbons EPH	89.2 115		SM17 2540G 3510/3550/8100M			08/21	- 44 /
Benzene Toluene Toluene Toluene Toluene  0.020 U mg/Kg EPA 8020 08/21 08/24 JL Ethylbenzene 0.025 mg/Kg EPA 8020 08/21 08/24 JL O-Xylene 0.123 mg/Kg EPA 8020 08/21 08/24 JL O-Xylene 0.056 mg/Kg EPA 8020 08/21 08/24 JL Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 0.020 U mg/Kg EPA 8010 1,1 Dichloroethane 0.020 U mg/Kg EPA 8010 1,1 Dichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Carbontetrachloride 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JL Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JL	Hydrocarbons VPH		mg/Kg	EPA 8015M/8020				
p&m Xylene         0.045         mg/Kg         EPA 8020         08/21 08/24           o-Xylene         0.123         mg/Kg         EPA 8020         08/21 08/24         JL           Halogenated Volatile Or Methylene Chloride         0.020 U mg/Kg         EPA 8010         08/21 08/24         JL           1,1 Dichloroethylene Chloride         0.020 U mg/Kg         EPA 8010         08/21 08/24         JL           1,1 Dichloroethane Chloride         0.020 U mg/Kg         EPA 8010         08/21 08/24         JL           Chloroform Chloroethane Chloride         0.020 U mg/Kg         EPA 8010         08/21 08/24         JL           Carbontetrachloride Chloropropane Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethane Chloroethane Chloroethane Chloroethane Chloroethane Chloroethane Chloroethane Chloroethane Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene Chloroethylene	Toluene	0.020 ປ 0.020 ປ		EPA 8020		08/21	08/24	
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane 0.020 U mg/Kg EPA 8010 1,1 Dichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Chloroform 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Carbontetrachloride 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE 1, 2 Dichloropropane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE 1,1,2 Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dibromochloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Tetrachloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Tetrachloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trichlorofluoromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trichlorofluoromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trans12Dichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trans12Dichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trans12Dichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trans12Dichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trans12Dichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trans12Dichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB	p&m Xylene	0.123	ng/Kg ng/Kg	EPA 8020 EPA 8020		08/21	08/24	9
1,1 Dichloroethylene 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,2 Dichloropropane 1,2 Dichloropropane 1,3 Dichloroethane 1,4 Dichloroethane 1,5 Dichloroethane 1,6 Dichloroethane 1,7 Dichloroethane 1,8 Dichloroethane 1,9 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,2 Dichloroethane 1,3 Dichloroethane 1,4 Dichloroethane 1,5 Dichloroethane 1,6 Dichloroethane 1,7 Dichloroethane 1,8 Dichloroethane 1,8 Dichloroethane 1,9 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichloroethane 1,1 Dichl	nethylene Chlorida				?	08/21	08/24	17.1
Carbontetrachloride 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF 1, 2 Dichloropropane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF 1,1,2 Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Dibromochloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Tetrachloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Chlorobenzene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trichlorofluoromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trichlorofluoromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trans12Dichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trans12Dichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trans12Dichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trans13Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010	1,1 Dichloroethylene 1,1 Dichloroethane	0.020 U 0.020 U	mg/Kg mg/Ka	EPA 8010		08/21	08/24	JLI JLI
1,1,2 Trichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Dibromochloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Tetrachloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Chlorobenzene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trichlorofluoromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Trans12Dichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF 1,2 Dichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF 1,1 Trichoroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF 1,1,1 Trichoroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLF Bromodichlor	Carbontetrachloride 1, 2 Dichloropropane	0.020 U 0.020 U	mg/Kg mg/Kg	EPA 8010 EPA 8010		08/21 ( 08/21 (	08/24 08/24	JLE JLE
Chlorobenzene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trichlorofluoromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Trans12Dichloroethylene 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE 1,2 Dichloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE 1,1,1 Trichoroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLE Dichloromethane 0.020 U mg/Kg EPA 8	1,1,2 Trichloroethane Dibromochloromethane	0.020 U	mg/Kg mg/Kg	EPA 8010 EPA 8010	(	08/21 (	08/24	JLE JLE
17ans12Dichloroethylene	Chlorobenzene Trichlorofluoromethane	0.020 U 0.020 U	mg/Kg mg/Kg	EPA 8010 EPA 8010	(	08/21 0 08/21 0	8/2 <b>4</b> 8/2 <b>4</b>	JLE JLE
Bromodichloromethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB	1rans12Dichloroethylene 1,2 Dichloroethane 1,1,1 Trichoroethane	0.020 U 0.020 U	mg/Kg	EPA 8010	0	08/21 0: 08/21 0:	8/24 8/24	JLB JLB
L (.15~1 1-11106) 5-5	Bromodichloromethane Trans1,3Dichloropropene	0.020 U 0.020 U	mg/Kg	EPA 8010 EPA 8010	0; 0;	8/21 08 8/21 08	8/24 8/24	JLB
Bromoform 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB 1122-Tetrachloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB	1122-Tetrachloroethane	0.020 U	mg/Kg mg/Kg	EPA 8010 EPA 8010	08	8/21 08	3/24	JLB JLB
Chloromethane	Chioromethane Bromoethane Vinyl Chloride	0.020 U 0.020 U	mg/Kg	EPA 8010	90 90	8/21 08 8/21 08	3/24 3/24	JLB JLB
Chloroethane 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB 0.020 U mg/Kg EPA 8010 08/21 08/24 JLB	Chloroethane	0.020 U	mg/Kg	EPA 8010 EPA 8010	80 8 <b>0</b>	3/21 08 3/21 08	1/24 1/24	JLB J

ENVIRONMENTAL LABORATORY SERVICES

114 261415 2000	_				
Chemiab Ref. # :93.4203-1		RE	PORT of A	NAL.YSTS	
Client Sample ID : RTR SPAR	מחמ				5633 B STREET
	DUO				ANCHUHAGE, AK 99518
matrix :SOIL 551	3				1EL (907) 562-2143
	_				FAX (907) 561-5301
2-Chloroethylvinylether	0.020	U	™g/Kg		
1.3-Dichlorobenzene	0.020			EPA 8010	08/21 08/24 лл
1,2-Dichlorobenzene	0.020		mg/Kg	EPA 8010	00 (24 00 00
	0.020	U	mg/Kg	EPA 8010	00 (01 00 10
Organochlorine Pest					08/21 08/24 JLI
Aldrin				EPA 8080	
Alpha-BHC	0.002	_	mg/Kg	EPA 8080	<b>40</b> (0)
Beta-BHC	0.002	U	mg/Kg	EPA 8080	08/21 08/24 NRC
	0.002	U	mg/Kg		08/21 08/24 NRC
Delta-BHC	0.002	U	mg/Kg	EPA 8080	08/21 08/24 NRC
Gamma-BHC	0.002	Ū		EPA 8080	08/21 08/24 NRC
Chlordane	0.020	Ü	mg/Kg	EPA 8080	00/24 00/04
4,4'-DDD	0.002	บ	mg/Kg	EPA 8080	00 (04 00 15
4,4'-DDE	0.002	Ü	mag/Kg	EPA 8080	00 (01 00 10 1
4,4'-DDT	0.002		ng/Kg	EPA 8080	00 (04 00 10
Dieldrin		U	<u>n</u> g∕Kg	EPA 8080	00 (04 05 15
Endosulfan I	0.002	U	mg∕Kg	EPA 8080	08/21 08/24 NRC
Endosulfan II	0.002	U	mg/Kg	EPA 8080	08/21 08/24 NRC
Endosulfan Sulfate	0.002	U	mg/Kq	EPA 8080	08/21 08/24 NRC
Endrin	0.003	U	mg/Kg	EPA 8080	08/21 08/24 NRC
	0.002	U	mg/Kg	EPA 8080	08/21 08/24 NRC
Endrin Aldehyde	0.002	U	mg/Kg		08/21 08/24 NRC
Heptachlor	0.002	U	mg/Kg	EPA 8080	08/21 08/24 NRC
Heptachlor Epoxide	0.002	U	mg/Kg	EPA 8080	08/21 08/24 NRC
oxychlor	0.002	Ŭ	mg/Kg	EPA 8080	08/21 08/24 NRC
aphene	0.020	Ŭ		EPA 8080	08/21 08/24 NRC
PCB-1016	0.020	Ü	mg/Kg	EPA 8080	08/21 08/24 NRC
PCB-1221	0.020		mg/Kg	EPA 8080	
PCB-1232	0.020	U	mg/Kg	EPA 8080	
PCB-1242		U	mg/Kg	EPA 8080	
PCB-1248	0.020	U	mg∕Kg	EPA 8080	08/21 08/24 NRC
PCB-1254	0.020	U	mg/Kg	EPA 8080	08/21 08/24 NRC
PCB-1260	0.020	U	mg/Kg	EPA 8080	08/21 08/24 NRC
- 05 1200	0.020	U	mg/Kg	EPA 8080	08/21 08/24 NRC
			<i></i>	i≟CA OUNU	00/21 00/04

EPA 8080

Special Instructions Above See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit.

UA = Unavailable

NRC

08/21 08/24

NA = Not AnalyzedLT = Less Than

**GT** = Greater Than





ENVIRONMENTAL LABORATORY SERVICES



Chemiab Ref.#

:93.4216-4

Client Sample ID :BTR SS13 SW01

Matrix

WATER

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS :DEW LINE

Project# **PWSID** 

:BARTER :UA

RUSH Order

:69828

Collected

Report Completed :08/30/93

:08/18/93

@ 12:00 hr:

Received

:08/20/93 @ 11:30

hr:

Technical Director: STEPHEN /C. EDE Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, ROBERT T., AND P.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	5.76		mg/L	3510/3550/8100M		08/22	08/23	JBF
VPH & BTEX Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WLS
Benzene Toluene Ethylbenzene P&m Xylene O-Xylene	0.0010 0.0010 0.0010 0.0010 0.0010	บ บ บ บ	mg/L mg/L mg/L mg/L	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21 08/21 08/21	08/24 08/24	WLS WLS WLS S

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

NA = Not AnalyzedLT = Less Than GT = Greater Than

UA = Unavailable



EMPIRONMENTAL SERVICES IN ALASKA COLORADO LITARE HEMICIGO

Member of the SGS Group (Société Générale de Surveillance)



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.# :93.4212-1 Client Sample ID :BTR SS13 SW01

Matrix :WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

:RAY MORRIS :DEW LINE :BARTER

PWSID

:UA

WORK Order

Received

:69840

Report Completed :10/08/93 Collected :08/18/93

@ 12:00 hrs :08/20/93 @ 11:30 hrs

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. FOR 8260 SPIKE AND SPIKE DUPLICATE, SEE WORK ORDER 93.4209-2,3.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		00 (27	00 /07	
Bromobenzene	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
Bromochloromethane	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
Bromodichloromethane	0.0010	Ŭ	mg/L	EPA 8260			08/27	KWM
Bromoform	0.0010	Ü	mg/L				08/27	KWM
Bromomethane	0.0010	Ü	mg/L	EPA 8260 EPA 8260			08/27	KWM
n-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
sec-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
tert-Butylbenzne	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
Carbon Tetrachloride	0.0010	Ū	mg/L	EPA 8260	•		08/27	KWM
Chlorobenzene	0.0010	บั	mg/L	EPA 8260			08/27	KWM
Chloroethane	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
Chloroform	0.0010	Ü	mg/L				08/27	KWM
Chloromethane	0.0010	Ŭ	mg/L	EPA 8260			08/27	KWM
2-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
4-Chlorotoluene	0.0010	Ŭ	mg/L	EPA 8260			08/27	KWM
Dibromochloromethane	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
12Dibromo3Chloropropane	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
1,2-Dibromoethane	0.0010	Ü	mg/L	EPA 8260			08/27	KWM
Dibromomethane	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
1,2-Dichlorobenzene	0.0010	Ŭ	mg/L	EPA 8260		08/27		KWM
1,3-Dichlorobenzene	0.0010	Ŭ	mg/L	EPA 8260 EPA 8260		08/27		KWM
1,4-Dichlorobenzene	0.0010	บั	mg/L	EPA 8260		08/27		KWM
Dichlorodifluoromethane	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
1,1-Dichloroethane	0.0010	Ū	mg/L	EPA 8260		08/27		KWM
1,2-Dichloroethane	0.0061	_	mg/L	EPA 8260		08/27		KWM
1,1-Dichloroethene	0.0010	บ	mg/L	EPA 8260		08/27		KWM
cis-1,2-Dichloroethene	0.0010	Ū	mg/L	EPA 8260		08/27		KWM
trans1,2-Dichloroethene	0.0010	Ū	mg/L	EPA 8260		08/27		KWM
1,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
2,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
1,1-Dichloropropene	0.0010	บั	mg/L	EPA 8260		08/27		KWM
Ethylbenzene	0.0010	ŭ	mg/L	EPA 8260		08/27		KWM
 Hexachlorobutadiene	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
Isopropylbenzene	0.0010	Ü	mg/L			08/27		KWM
,		-		EPA 8260		08/27	08/2/	KWM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS chemlab Ref.# 5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301 :93.4212-1 Client Sample ID :BTR SS13 SW01 Matrix :WATER

p-Isopropyltoluene	0.0010		mg/L	EPA 8260	08/27 08/27	7 KWM
Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/27 08/27	
Napthalene	0.0010	U	mg/L	EPA 8260	08/27 08/27	
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/27 08/27	
Styrene	0.0010	U	mg/L	EPA 8260	08/27 08/27	
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27 08/27	
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/27 08/27	
Tetrachloroethene	0.0010	บ	mg/L	EPA 8260	08/27 08/27	
Toluene	0.0010	U	mg/L	EPA 8260	08/27 08/27	
1,2,3-Trichlorobenzene	0.0010		mg/L	EPA 8260	08/27 08/27	
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	08/27 08/27	
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27 08/27	
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	08/27 08/27	
Trichloroethene	0.0010	U	mg/L	EPA 8260	08/27 08/27	
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	08/27 08/27	
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/27 08/27	
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/27 08/27 0 <del>8</del> /27 08/27	
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	08/27 08/27	
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	08/27 08/27	
p+m-Xylene	0.0010	Ū	mg/L	EPA 8260	08/27 08/27	KWM KWM
o-Xylene	0.0010	U	mg/L	EPA 8260	08/27 08/27	KWM
			J	<b>24</b> 11 0200	00/21 00/21	KWII
Semivolatile Organics				EPA 8270		
Phenol	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
1,2-Dichlorobenzene 2-Methylphenol	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
bis(2-Chloroisopropyl)e	0.010	Ü	mg/L	EPA 8270	08/24 08/25	MTT
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
n-Nitroso-di-n-Propylam	0.010	Ü	mg/L	EPA 8270	08/24 08/25	MTT
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
Isophorone	0.010 0.010	U	mg/L	EPA 8270	08/24 08/25	MTT
2-Nitrophenol	0.010	U U	mg/L	EPA 8270	08/24 08/25	MTT
2,4-Dimethylphenol	0.010	Ü	mg/L	EPA 8270	08/24 08/25	MTT
Benzoic Acid	0.010		mg/L	EPA 8270	08/24 08/25	MTT
bis(2-Chloroethoxy)Meth	0.010	บ	mg/L	EPA 8270	08/24 08/25	MTT
2,4-Dichlorophenol	0.010	บ	mg/L mg/L	EPA 8270	08/24 08/25	MTT
1,2,4-Trichlorobenzene	0.010	Ü	mg/L	EPA 8270	08/24 08/25	MTT
Naphthalene	0.010	บ	mg/L	EPA 8270	08/24 08/25	TTM
4-Chloroaniline	0.010	Ü	mg/L	EPA 8270	08/24 08/25	MTT
Hexachlorobutadiene	0.010	Ü	mg/L	EPA 8270 EPA 8270	08/24 08/25	MTT
4-Chloro-3-Methylphenol	0.010	Ŭ	mg/L	EPA 8270	08/24 08/25	MTT
2-Methylnaphthalene	0.010	Ŭ	mg/L	EPA 8270	08/24 08/25	MTT
Hexachlorocyclopentadie	0.010	Ŭ	mg/L	EPA 8270	08/24 08/25	MTT
2,4,6-Trichlorophenol	0.010	Ü	mg/L	EPA 8270	08/24 08/25	MTT
2,4,5-Trichlorophenol	0.010	Ü	mg/L	EPA 8270	08/24 08/25	CM
-		-	5, 🚨	LA 02/0	08/24 08/25	MT



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

chemlab Ref.# :93.4212-1 Client Sample ID :BTR SS13 SW01

Matrix

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL (907) 562-2343 FAX (907) 561-5301

Macrix .water						(,	
2-Chloronaphthalene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
2-Nitroanil <b>ine</b>	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Dimethylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
2,6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	MTT
3-Nitroaniline	0.010	Ū	mg/L	EPA 8270		08/24 08/25	MTT
Acenaphthene	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
2,4-Dinitrophenol	0.010	Ū	mg/L	EPA 8270		08/24 08/25	
4-Nitrophenol	0.010	Ū	mg/L	EPA 8270			MTT
Dibenzofuran	0.010	Ŭ	mg/L	EPA 8270		08/24 08/25	MTT
2,4-Dinitrotoluene	0.010	Ū	mg/L	EPA 8270		08/24 08/25	MTT
Diethylphthalate	0.010	Ŭ	mg/L	EPA 8270		08/24 08/25 08/24 08/25	MTT
4-Chlorophenyl-Phenylet	0.010	Ŭ	mg/L	EPA 8270		•	MTT
Fluorene	0.010	Ü	mg/L	EPA 8270		08/24 08/25	TTM
4-Nitroaniline	0.010	Ŭ	mg/L	EPA 8270		08/24 08/25	MTT
4,6-Dinitro-2-Methylphe	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
n-Nitrosodiphenylamine	0.010	Ū	mg/L	EPA 8270		08/24 08/25	· MTT
4-Bromophenyl-Phenyleth	0.010	Ŭ	mg/L	EPA 8270		08/24 08/25	MTT
Hexachlorobenzene	0.010	Ŭ	mg/L	EPA 8270		08/24 08/25	MTT
Pentachlorophenol	0.010	บั	mg/L	EPA 8270		08/24 08/25	MTT
Phenanthrene	0.010	Ŭ	mg/L	EPA 8270		08/24 08/25	MTT
Anthracene /	0.010	Ü	mg/L	EPA 8270	•	08/24 08/25	MTT
di-n-Butylphthalate	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
Fluoranthene	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
Pyrene	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
Butylbenzylphthalate	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
3,3-Dichlorobenzidine	0.010	บ	mg/L	EPA 8270		08/24 08/25	MTT
Benzo(a)Anthracene	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
Chrysene	0.010	Ū	mg/L	EPA 8270		08/24 08/25 08/24 08/25	MTT
bis(2-Ethylhexyl)Phthal	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
di-n-Octylphthalate	0.010	Ü	mg/L	EPA 8270			
Benzo(b)Fluoranthene	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
Benzo(k)Fluoranthene	0.010	Ū	mg/L	EPA 8270		08/24 08/25	MTT
Benzo(a)Pyrene	0.010	Ŭ	mg/L	EPA 8270		08/24 08/25	MTT
Indeno(1,2,3-cd)Pyrene	0.010	Ü	mg/L	EPA 8270		08/24 08/25 08/24 08/25	MTT
Dibenz(a,h)Anthracene	0.010	Ü	mg/L	EPA 8270			MTT
Benzo(g,h,i)Perylene	0.010	Ü	mg/L	EPA 8270		08/24 08/25	MTT
(3, /	00020	•	mg/ L	EFR 0210		08/24 08/25	MTT
Total Metals Analysis				_			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.16		mg/L	EPA 6010	, -	08/25 08/26	DLG
Antimony	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Arsenic	0.1	U	mg/L	EPA 6010		08/25 08/26	DLG
Barium	0.082		mg/L	EPA 6010		08/25 08/26	DLG
Beryllium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Cadmium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Calcium	75		mg/L	EPA 6010		08/25 08/26	DLG
Chromium	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Cobalt	0.1	U	mg/L	EPA 6010		<b>0</b> 8/25 08/26	DLG
Copper	0.05	U	mg/L	EPA 6010		08/25 08/26	DLG
Iron	1.6		mg/L	EPA 6010		<b>08/25</b> 08/26	DLG
7						,,	



ENVIRONMENTAL LABORATORY SERVICES

S.F. F. 1908		סיום	ORT of AN	NEWOYO			
Chemlab Ref.#	:93.4212-1	KEF	ORI OF AN	ALYSIS		5633 B S	TREET
Client Sample ID					F	NCHORAGE, AK	
Matrix	:WATER					TEL (907) 56 FAX (907) 56	
HOULTA	· WAILK					7 AA (307) 50	11-3301
Lead	0.1	U	ma /r	EDA (010	0.0	/25 00 <b>/26</b>	<b>D</b> f 0
Magnesium	26	U	mg/L	EPA 6010		/25 08/ <b>26</b>	DLG
Manganese	0.31		mg/L	EPA 6010		25 08/ <b>26</b>	DLG
Molybdenum	0.05	U	mg/L	EPA 6010		25 08/ <b>26</b>	DLG
Nickel	0.05	_	mg/L	EPA 6010	•	25 08/ <b>26</b>	DLG
Potassium	5.1	U	mg/L	EPA 6010		25 08/ <b>26</b>	DLG
			mg/L	EPA 6010		'25 08/ <b>26</b>	DLG
Selenium	0.1	U	mg/L	EPA 6010	· ·	'25 08/ <b>26</b>	DLG
Silver	0.05	U	mg/L	EPA 6010	08/	′25 08 <b>/26</b>	DLG
Sodium	100		mg/L	EPA 6010	08/	'25 08/ <b>26</b>	DLG
Thallium	0.005	U	mg/L	EPA 7841	08/	24 08/26	DLG
Vanadium	0.05	U	mg/L	EPA 6010		25 08/26	DLG
Zinc	0.05	U	mg/L	EPA 6010		25 08/26	DLG
			J. —		00,	25 00, 20	000
Dissolved Metal	ls Analys			_			
ICP Screen, ICE				EPA	n/a		
Aluminum	0.1	U	mg/L	EPA 6010		25 08/26	·DLG
Antimony		Ŭ	mg/L	EPA 6010		25 08/26	DLG
Arsenic	0.1	Ü	mg/L	EPA 6010		25 08/26	DLG
Barium	0.068	J	mg/L	EPA 6010		25 08/26 25 08/26	DLG
Beryllium	0.05	U	mg/L	EPA 6010 EPA 6010		25 08/ <b>26</b> 25 08/ <b>26</b>	DLG
Cadmium	0.05	Ü	mg/L	EPA 6010 EPA 6010		25 08/26 25 08/26	
Calcium	71	Ü	mg/L				DLG DLG
Chromium	0.05	U	mg/L	EPA 6010 EPA 6010		25 08/26	0.6
Cobalt	0.1	Ü	mg/L			25 08/26	
Copper	0.05	Ü	mg/L	EPA 6010		25 08/26	DEG DEG
Iron	0.28	U		EPA 6010		25 08/26	DLG
Lead	0.1	U	mg/L	EPA 6010		25 08/26	DLG
Magnesium	25	U	mg/L	EPA 6010		25 08/26	DLG
Manganese	0.24		mg/L	EPA 6010		25 08/26	DLG
Molybdenum		••	mg/L	EPA 6010		25 08/26	DLG
	0.05	Ü	mg/L	EPA 6010		25 <b>08/26</b>	DLG
Nickel	0.05	Ü	mg/L	EPA 6010		25 08/26	DLG
Potassium	5.0	Ü	mg/L	EPA 6010		25 08/26	DLG
Selenium	0.1	U	mg/L	EPA 6010		25 08/26	DLG
Silver	0.05	U	mg/L	EPA 6010		25 08/26	DLG
Sodium	110		mg/L	EPA 6010	08/	25 08/26	DLG
Thallium	0.005	U	mg/L	EPA 7841	08/	24 08/26	DLG
Vanadium	0.05	U	mg/L	EPA 6010	08/	25 08/26	DLG
Zinc	0.05	U	mg/L	EPA 6010	08/	25 <b>08/26</b>	DLG

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.# :93.4219-7 Client Sample ID :BTR SS13 SW02

Matrix

:WATER

:ICF KAISER ENGINEERING

**5633 B STREET** ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

RUSH Order :69831 Report Completed :08/30/93

Collected :08/18/93 @ 13:25 Received :08/20/93 @ 11:30 hr:

Technical Director: STEPHEN C, EDE

Released By :

Client Name

PWSID

Ordered By Project Name

Project#

:RAY MORRIS :DEW LINE :BARTER :UA

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. EPH PATTERN IS NOT

CONSISTENT WITH UNWEATHERED MIDDLE DISTILLATE FUEL.

Parameter	Results Qu	QC ual Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Hydrocarbons EPH	1.30	mg/L	3510/3550/8100M		08/27	08/28	DR
VPH & BTEX Hydrocarbons VPH	0.069	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/26	08/26	WES
Benzene Toluene Ethylbenzene Sam Xylene -Xylene	0.0069 0.0010 0.0031 0.0054 0.0074	ng/L Ung/L ng/L ng/L ng/L	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/26 08/26 08/26	08/26 08/26 08/26 08/26 08/26	MIS MIS MIS MIS MIS

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



SGS Member of the SGS Group (Société Générale de Surveillance)



### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR SS13 SW02

:93.4213-1

Matrix

:WATER

5633 B STREE? ANCHORAGE, AK 99518 TEL: (907) 562-234( FAX: (907) 561-530

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

:69842 Report Completed :09/20/93

Collected Received

:08/18/93 @ 13:25 h: :08/20/93 @ 11:30 h:

Technical Director: STEPHEN C. EDE Released By : South C.

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T.

Parameter	QC Results Qual U	nits Method	Allowable Ext. Limits Date	D-1	Tni
Volatile Organics Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon Tetrachloride Chlorobenzene Chlorotoluene Chlorotoluene 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 12Dibromo3Chloropropane 1,2-Dibromoethane Dibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,1-Dichloroethane 1,2-Dichloroethene 1,2-Dichloroethene 1,1-Dichloropropane 1,3-Dichloropropane 1,3-Dichloropropane 1,3-Dichloropropane 1,3-Dichloropropane 1,3-Dichloropropane 1,3-Dichloropropane 1,3-Dichloropropane 1,3-Dichloropropane 1,1-Dichloropropane 1,1-Dichloropropane 1,1-Dichloropropane 1,1-Dichloropropane 1,1-Dichloropropane 1,1-Dichloropropane 1,1-Dichloropropane 1,1-Dichloropropane 1,1-Dichloropropane	0.0064	EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/L EPA 8260  ING/	08/31 08/31 08/31 08/31 08/31 08/31 08/31 08/31 08/31 08/31	1 08/31 1 08/31 1 08/31 1 08/31 1 08/31 1 08/31 1 08/31 1 08/31 08/31 08/31 08/31 1 08/31 1 WI WI WI WI WI WI WI WI WI WI WI WI W	



ENVIRONMENTAL LABORATORY SERVICES

5 % 18 9.49							
Chemlab Ref.# :93.4213-1		REP	OKI OF AND	alysis ICC		5633 B S	TREET
						ORAGE, AK	
Client Sample ID :BTR SS13	SWUZ					EL: (907) 56 AX: (907) 56	
Matrix :WATER					•	(507) 50	,, 500
Methylene Chloride	0 0010						
	0.0010	U	mg/L	EPA 8260		08/31	K
Napthalene	0.0016		mg/L	EPA 8260		08/31	K!
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	08/31	08/31	KV
Styrene	0.0010	U	mg/L	EPA 8260	08/31	08/31	ΚV
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	08/31	08/31	Κ¥
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260		08/31	Kŀ
Tetrachloroethene	0.012		mg/L	EPA 8260		08/31	K1
Toluene	0.0010	Ü	mg/L	EPA 8260		08/31	Kŀ
1,2,3-Trichlorobenzene	0.0010	Ū	mg/L	EPA 8260		08/31	K
1,2,4-Trichlorobenzene	0.0010	ŭ	mg/L	EPA 8260		08/31	KF
1,1,1-Trichloroethane	0.0010	Ü	mg/L	EPA 8260		08/31	
1,1,2-Trichloroethane	0.0010	Ü					K
Trichloroethene	0.0010	U	mg/L	EPA 8260		08/31	K
Trichlorofluoromethane		_	mg/L	EPA 8260		08/31	KV
	0.0010	Ü	mg/L	EPA 8260		08/31	KW
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260		08/31	K
1,2,4-Trimethylbenzene	0.0014		mg/L	EPA 8260		08/31	KW
1,3,5-Trimethylbenzene	0.0013		mg/L	EPA 8260		08/31	KW
Vinyl Chloride	0.0010	U	mg/L	EPA 8260		08/31	KW
p+m-Xylene	0.0045		mg/L	EPA 8260		08/31	KW
o-Xylene	0.0059		mg/L	EPA 8260	08/31	08/31	KW
Gamatana							
Semivolatile Organics	0.010		<b></b>	EPA 8270			
Phenol	0.010	U	mg/L	EPA 8270		08/25	MT
bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270		08/25	MT
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Benzyl Alcohol	0.010	U	mg/L	EPA 8270		08/25	MT
1,2-Dichlorobenzene	0.010	U	mg/L	EPA 8270		08/25	MT
2-Methylphenol	0.010	U	mg/L	EPA 8270		08/25	MT
bis(2-Chloroisopropyl)e	0.010	U	mg/L	EPA 8270		08/25	MT
4-Methylphenol	0.010	Ü	mg/L	EPA 8270		08/25	MT
n-Nitroso-di-n-Propylam	0.010	Ü	mg/L	EPA 8270		08/25	MT
Hexachloroethane	0.010	Ü	mg/L	EPA 8270		08/25	MT
Nitrobenzene	0.010	Ü	mg/L	EPA 8270		08/25	MT
Isophorone	0.010	Ü		EPA 8270			
2-Nitrophenol	0.010	บ	mg/L			08/25	MT
2,4-Dimethylphenol	0.010		mg/L	EPA 8270		08/25	MT
Benzoic Acid		U	mg/L	EPA 8270		08/25	MT
bis(2-Chloroethoxy)Meth	0.010	U	mg/L	EPA 8270		08/25	MT
	0.010	U	mg/L	EPA 8270		08/25	MT
2,4-Dichlorophenol	0.010	Ü	mg/L	EPA 8270		08/25	MT
1,2,4-Trichlorobenzene	0.010	U	mg/L	EPA 8270	08/24		MT
Naphthalene	0.010	U	mg/L	EPA 8270	08/24		MT.
4-Chloroaniline	0.010	U	mg/L	EPA 8270	08/24		MT
Hexachlorobutadiene	0.010	U	mg/L	EPA 8270	08/24		MT
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/24	08/25	MT
2,4,6-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24		MT
2,4,5-Trichlorophenol	0.010	U	mg/L	EPA 8270	08/24		MT
<pre>2-Chloronaphthalene</pre>	0.010	u.	mg/L	EPA 8270	08/24		MT
			<u>~</u> .		<b>,</b>		



ENVIRONMENTAL LABORATORY SERVICES



:93.4213-1 Chemlab Ref.# Client Sample ID :BTR SS13 SW02 5633 B STREET ANCHORAGE, AK 99516 TEL: (907) 562-2343

Matrix :WATER	SW02				FAX: (907) 561-	
2-Nitroaniline	0.010	U mg/	L EPA 8270	08/24	4 08/25	MT.
Dimethylphthalate	0.010	U mg/	L EPA 8270	08/24	4 08/25	MT
Acenaphthylene	0.010	U mg/	L EPA 8270	08/24	4 08/25	MT
2,6-Dinitrotoluene	0.010	U mg/			4 08/25	MT
3-Nitroaniline	0.010	U mg/		08/24	4 08/25	MΩ
Acenaphthene	0.010	U mg/		08/24	4 08/25	MT
2,4-Dinitrophenol	0.010	U mg/			1 08/25	MT
4-Nitrophenol	0.010	U mg/			4 08/25	MT
Dibenzofuran	0.010	U mg/		08/24	1 08/25	MI
2,4-Dinitrotoluene	0.010	U mg/	L EPA 8270	08/24	1 08/25	MT
Diethylphthalate	0.010	U mg/		08/24	1 08/25	MT
4-Chlorophenyl-Phenylet	0.010	U mg/		08/24	1 08/25	<b>LH</b>
Fluorene	0.010	U mg/	L EPA 8270	08/24	1 08/25	MI
4-Nitroaniline	0.010	U mg/			1 08/25	MI
4,6-Dinitro-2-Methylphe		U mg/			08/25	MI
n-Nitrosodiphenylamine	0.010	U mg/			08/25	MI
4-Bromophenyl-Phenyleth	0.010	U mg/			1 08/25	MI
Hexachlorobenzene	0.010	U mg/		08/24	1 08/25	MI
Pentachlorophenol	0.010	U mg/		08/24	08/25	MT
Phenanthrene	0.010	U. mg/		08/24	1 08/25	HT
Anthracene	0.010	U mg/	L EPA 8270	08/24	1 08/25	_HT
di-n-Butylphthalate	0.010	U mg/	L EPA 8270	08/24	1 08/25	T
Fluoranthene	0.010	U mg/		08/24	08/25	TI
Pyrene		U mag/			1 08/25	MT
Butylbenzylphthalate		U mg/			1 08/25	MT
3,3-Dichlorobenzidine		U mg/			1 08/25	MT
Benzo(a)Anthracene		U mg/			08/25	MT
Chrysene		U mg/			08/25	MT
bis(2-Ethylhexyl)Phthal		U mg/			08/25	MT
di-n-Octylphthalate		U mg/			1 08/25	HT
Benzo(b)Fluoranthene		U mg/			08/25	MT
Benzo(k)Fluoranthene		U mg/			1 08/25	MT
Benzo(a)Pyrene		U mg/			08/25	MT
Indeno(1,2,3-cd)Pyrene		U mg/			1 08/25	MT
Dibenz(a,h)Anthracene		U mg/			08/25	MT
Benzo(g,h,i)Perylene	0.010	U mg/	L EPA 8270	08/24	1 08/25	MT
Total Metals Analysis			_ 	<b>-</b> /-		
ICP Screen, ICF	0.21		EPA COLO	n/a	: 00/26	DE
Aluminum Antimony	0.21	mg/		00/25	5 08/26 5 08/26	DL DL
Arsenic		U mg/		00/25	08/26	DL
Barium	0.082	mg/			08/26	DL
Beryllium		U mg/			08/26	DL.
Cadmium		U mg/			08/26	DL
Calcium	130	mg/			08/26	DL
Chromium		U mg/			08/26	DL
Cobalt		U mg/			08/26	DL
Copper		U mg/			08/26	DL
Iron	12	mg/			08/26	L
Lead	0.1	U'mg/	L EPA 6010	08/25	08/26	-DL



ENVIRONMENTAL LABORATORY SERVICES

3 % LE (908)		DED	ODT - 5				
Chemlab Ref.# Client Sample ID Matrix	:93.4213-1 :BTR SS13 SW02 :WATER	REP	ORT OF AN	alysis &C		5633 <b>B</b> S ANCHORAGE, AK TEL: (907) 56	( 9951≀ 52-234:
	·WAICK					FAX: (907) 56	i1-530
Magnesium	46		mg/L	FD1 (010			
Manganese	0.54		mg/L	EPA 6010 .		08/25 08/26	D:
Molybdenum	0.05	U	mg/L	EPA 6010		08/25 08/26	D:
Nickel	0.05	บั	mg/L	EPA 6010		08/25 08/26	Di
Potassium	17	Ū	mg/L	EPA 6010		08/25 08/26	Di
Selenium	0.1	U	mg/L	EPA 6010		08/25 08/26	DI
Silver	0.05	Ü	mg/L	EPA 6010		08/25 08/26	Di
Sodium	92	U	mg/L	EPA 6010		08/25 08/26	DI
Thallium	0.0050	U	mg/L	EPA 6010		08/25 08/26	DI
Vanadium	0.05	บ	mg/L	EPA 7841		08/24 08/26	KJ
Zinc	0.05	Ü	mg/L	EPA 6010		08/25 08/26	DI
	0.03	J	mg/ L	EPA 6010		08/25 08/26	DI
Dissolved Metal	s Analys						
ICP Screen, ICF				EPA	- 1-		
Aluminum	0.1	U	mg/L	EPA 6010	n/a	00.405.00.404	
Antimony	0.1	Ü	mg/L	EPA 6010		08/25 08/26	DI
Arsenic	0.1	Ū	mg/L	EPA 6010		08/25 08/26	DL
Barium	0.065	-	ng/L	EPA 6010		08/25 08/26	DL
Beryllium	0.05	U	mg/L	EPA 6010		08/25 08/26	DI.
Cadmium	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Calcium	130		mg/L	EPA 6010		08/25 08/26	DL
Chromium	0.05	U	mg/L	EPA 6010		08/25 08/26 08/25 08/26	DL
Cobalt	0.1	U	mg/L	EPA 6010		08/25 08/26	DL
Copper	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Iron	4.0		mg/L	EPA 6010		08/25 08/26	DL DL
Lead	0.1	U	mg/L	EPA 6010		08/25 08/26	DL.
Magnesium	46		mg/L	EPA 6010		08/25 08/26	DL.
Manganese	0.50		mg/L	EPA 6010		08/25 08/26	DL
Molybdenum	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Nickel	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Potassium	17		mg/L	EPA 6010		08/25 08/26	DL
Selenium	0.1	U	mg/L	EPA 6010		08/25 08/26	DL
Silver	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
Sodium	98		mg/L	EPA 6010		08/25 08/26	DL
Thallium	0.0050	U	mg/L	EPA 7841		08/24 08/26	KA
Vanadium Zinc	0.05	U	mg/L	EPA 6010		08/25 08/26	DL
ATHU	0.05	U	mg/L	EPA 6010		08/25 08/26	DL

See Special Instructions Above See Sample Remarks Above

d = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

8Wt change site location :93.4206-2 2 Feb 95

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518

Chemlab Ref.# Client Sample ID :BTR SD08 SW05

TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix

: WATER SS (3)

> :69806 RUSH Order

Client Name Ordered By Project Name :ICF KAISER ENGINEERING :RAY MORRIS :DEW LINE

Report Completed :08/24/93 :08/17/93 Collected

Project# PWSID

:BARTER :UA

@ 11:25 hrs. @ 18:45 hrs. Received :08/19/93

Technical Director: STEPHEN C. EDE Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETE M.G., AND M.L. SAMPLE RECEIVED WITH 1 SAMPLE CONTAINS CIS-1-2-DCE AT 0.0014 PPM. BROKEN.

Allowable Ext. Anal QC Date Date Init Results Qual Units Method Limits Parameter 08/22 08/23 **JBH** 3510/3550/8100M 0.334 mg/L Hydrocarbons EPH EPA 8015M/8020 VPH & BTEX 08/22 08/22 KWM EPA 5030/8015m 0.020 U mg/L Hydrocarbons VPH 08/22 08/22 JLB **EPA** 8020 0.0010 U mg/L Benzene JLB 08/22 08/22 **EPA** 8020 0.0010 U mg/L Toluene 08/22 08/22 JLB U EPA 8020 0.0010 mg/L Ethylbenzene 08/22 08/22 JL U EPA 8020 0.0010 mg/L p&m Xylene JL 08/22 08/22 **EPA** 8020 0.0010 U mg/L o-Xylene **EPA** 8010 Halogenated Volatile Or 08/22 08/22 JLB **EPA** 8010 0.0010 U mg/L Methylene Chloride 08/22 08/22 JLB EPA 8010 0.0010 mg/L u 1,1 Dichloroethylene 08/22 08/22 JLB mg/L EPA 8010 1,1 Dichloroethane 0.0010 U 08/22 08/22 JLB **EPA** 8010 0.0010 U mg/L Chloroform **EPA** 8010 08/22 08/22 JLB Carbontetrachloride 0.0010 U mg/L 08/22 08/22 JLB **EPA** 8010 0.0010 U mg/L 1. 2 Dichloropropane 08/22 08/22 JLB EPA 8010 0.0010 U mg/L Trichloroethylene JLB 08/22 08/22 U **EPA** 8010 0.0010 mg/L 1.1.2 Trichloroethane JLB 08/22 08/22 0.0010 u mg/L EPA 8010 Dibromochloromethane 08/22 08/22 JLB EPA 8010 0.0010 U mg/L Tetrachloroethylene 08/22 08/22 JLB **EPA** 8010 mg/L 0.0010 H Chlorobenzene 08/22 08/22 JLB EPA 8010 0.0010 H mg/L Trichlorofluoromethane 08/22 08/22 JLB **EPA** 8010 0.0010 U mg/L Trans12Dichloroethylene 08/22 08/22 JLB EPA 8010 0.0033 mg/L 1.2 Dichloroethane EPA 8010 08/22 08/22 JLB mg/L 0.0010 U 1,1,1 Trichoroethane JLB EPA 8010 08/22 08/22 0.0010 U mg/L Bromodichloromethane 08/22 08/22 JLB **EPA** 8010 mg/L 11 Trans1,3Dichloropropene 0.0010 08/22 08/22 JLB **EPA** 8010 mg/L U 0.0010 cis-1,3-Dichloropropene JLB **EPA** 8010 08/22 08/22 0.0010 U mg/L Bromoform JLB 08/22 08/22 **EPA** 8010 0.0010 U mg/L 1122-Tetrachloroethane JLB 08/22 08/22 mg/L **EPA** 8010 0.0010 U Chloromethane 08/22 08/22 JLB 0.0010 U mg/L EPA 8010 Bromoethane JLB 08/22 08/22 **EPA** 8010 0.0010 U mg/L Vinyl Chloride 08/22 08/22 JLB EPA 8010 0.0010 П mg/L Chloroethane JL **EPA** 8010 08/22 08/22 0.0010 U mg/L 1.4 Dichlorobenzene



Matrix

### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

:93.4206-2 360 gr

REPORT of ANALYSIS SKY

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

JLB

JLB

JLB

Chemlab Ref.#

2-Chloroethylvinylether

1,3-Dichlorobenzene

1,2-Dichlorobenzene

Client Sample ID :BTR SD08 SW05 :WATER 5513

> 08/22 08/22 EPA 8010 mg/L 0.0010 U 08/22 08/22 EPA 8010 0.0010 U mg/L 08/22 08/22 mg/L **EPA** 8010 0.0010 U

ee Special Instructions Above see Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than

Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

(Name to love trans :93.4206-3" 15005

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR \$808 SW06 :WATER 5513

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

llient Name )rdered By

**Matrix** 

:ICF KAISER ENGINEERING

:RAY MORRIS

:DEW LINE oroject Name :BARTER Project# **WSID** :UA

:69806 RUSH Order

:08/24/93 Report Completed

@ 11:42 hrs. :08/17/93 Collected Received :08/19/93 @ 18:45 hrs.

Technical Director: STEPHEN G. EDE

Released By : Man

Sample Remarks: SAMPLE COLLECTED BY: PETE M.G., AND M.L. SAMPLE CONTAINS CIS-1-2-DCE AT 0.012 PPM.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.196		mg/L	3510/3550/8100M		08/22	08/23	JBH
VPH & BTEX Hydrocarbons VPH	0.020	บ	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/22	08/22	KWM
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.0010 0.0010 0.0010 0.0022 0.0016	U U U	mg/L mg/L mg/L mg/L mg/L	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/22 08/22 08/22	08/22 08/22 08/22 08/22 08/22	JLB JLB JLB JLP JL
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethylene 1,1 Trichoroethane 1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane Bromoethane	0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010	ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22	08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22	
Chloroethane 1,4 Dichlorobenzene	0.0010 0.0010		mg/L mg/L	EPA 8010 EPA 8010			08/22	JL



ENVIRONMENTAL LABORATORY SERVICES

AKB95 AN

REPORT of ANALYSIS

Chemilab Ref.#

:93.4206-3 Client Sample ID :BTR SD08 SW06

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

Matrix

:WATER \$513

FAX: (907) 561-5301

2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/22 08/22	JLB

pe Special Instructions Above

e Sample Remarks Above

J = Undetected, Reported value is the practical quantification limit. ) = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Than



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ENVIRONMENTAL LABORATORY SERVICES

2 Feb 958Mf

REPORT of ANALYSIS

Chemlab Ref.# :93.4206-1 Client Sample ID :BTR SD08 SW07 :WATER \$613 Matrix

:UA

ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

^oroject Name

oroject#

**™SID** 

:ICF KAISER ENGINEERING

:RAY MORRIS :DEW LINE :BARTER

:69806 RUSH Order Report Completed :08/24/93

Collected Received

:08/17/93 @ 11:56 hrs. :08/19/93 @ 18:45 hrs.

5633 B STREET

Technical Director: STEPHEN C. EDE Released By : Stephen C. EDE

Sample Remarks: SAMPLE COLLECTED BY: PETE M.G., AND M.L. 2 XIL BROKEN. UNABLE TO DO MATRIX SPIKE AND MATRIX SPIKE DUPLICATE DUE TO BROKEN CONTAINERS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.349		mg/L	3510/3550/8100M		08/22	08/23	J <b>BH</b>
VPH & BTEX Hydrocarbons VPH	0.020		mg/L	EPA 8015M/8020 EPA 5030/8015m		08/22	08/22	KWM
Benzene Toluene Ethylbenzene	0.0010 0.0010 0.0032	U U	mg/L mg/L mg/L	EPA 8020 EPA 8020 EPA 8020		08/21 08/21	08/21 08/21 08/21	JLB JLB JLB
p&m Xylene o-Xylene	0.0080 0.0045		mg/L mg/L	EPA 8020 EPA 8020			08/21 08/21	JL
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform	0.0010 0.0010 0.0010 0.0010	U U	mg/L mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21	08/21 08/21 08/21 08/21	JLB JLB JLB
Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane	0.0010 0.0010 0.0010 0.0010	U U	mg/L mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/21 08/21 08/21 08/21	JLB JLB JLB JLB
Dibromochloromethane Tetrachloroethylene Chlorobenzene	0.0010 0.0010 0.0010	U U U	mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/21 08/21 08/21	JLB JLB JLB JLB
Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethane 1,1,1 Trichoroethane	0.0010 0.0010 0.0010 0.0010	U U	mg/L mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/21 08/21 08/21 08/21	JLB JLB JLB
Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene	0.0010 0.0010 0.0010	U U	mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/21 08/21 08/21	JLB JLB JLB
Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane	0.0010 0.0010 0.0010 0.0010	U U	mg/L mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/21 08/21 08/21 08/21	JLB JLB JLB JLB
Vinyl Chloride Chloroethane 1,4 Dichlorobenzene	0.0010 0.0010 0.0010	บ บ	mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/21 08/21 08/21	JLB JLB JLP



Matrix

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

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REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518

Chemiab Ref.# Client Sample ID :BTR SD08 SW07

:93.4206-1

:WATER \$813

TEL: (907) 562-2343 FAX: (907) 561-5301

2-Chloroethylvinylether 1,3-Dichlorobenzene

0.0010 U 0.0010 U

mg/L mg/L EPA 8010 EPA 8010 EPA 8010

08/21 08/21 08/21 08/21

JLB JLB

1,2-Dichlorobenzene

mg/L

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than

JLB

0.0010 U

08/21 08/21

See Special Instructions Above

) = Secondary dilution.

ee Sample Remarks Above Undetected, Reported value is the practical quantification limit.

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ICF ID	BTR-SS13-2S05 1724	BTR-SS13-2S06 1726	BTR-SS13-2S07 1728
F&BI Number			soil
Sample Type	soil	soil	
Date Received	9/3/93	9/3/93	9/3/93 87
% Dry Weight	#6 00/0E/02	92 #6.0010E102	#6-09/05/93
Sequence Date	#6-09/05/93	#6-09/05/93	#6-03/03/33
Leaded Gas	- 00	~ CO	< 60
JP-4	< 60	< 60	
Lube Oil	2400	< 120	< 120
Diesel	< 60	< 60	287 ¶110 J
Spike Level			
Unknown Semi-volatile	00	00	oc
Pentacosane	90	90	86
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan l			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level	#19.2 00106102	#19.2 00106102	#18.2 00/06/02
Vol Sequence	#1&2-09/06/93	#1&2-09/06/93 <0.1 J	#1&2-09/06/93 <0.1 J
CCI4 TCA	<0.1J	< 0.1 J	<0.1√ <0.1√
	< 0.02	< 0.02	< 0.02
Benzene TCE	< 0.02 < 0.1 T	< 0.02	<0.1J
Toluene	< 0.02	< 0.13	< 0.02
PCE	<0.12 - <0.13 -	<0.02 <0.1 <b>.</b> T	0.3 J
	< 0.02	< 0.02	0.07
Ethylbenzene Yylonos	< 0.02 < 0.04	< 0.02 < 0.04	0.5プ
Xylenes Gasoline	<17	<1 J	6 diesel J
Spike level	\ 1 <del>- 1</del>	\	o meser A
Spike level BFB	98	97	90
ט וט	30	31	JU

11.11.94 11.11.94 ANALYTICAL DATA SHEETS FOR THE GARAGE (SS14)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

chemlab Ref.# :93.4301-7 Client Sample ID :BTR-SS14-S04

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL. (907) 562-2343 FAX: (907) 561-5301

Client Name

Matrix

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE :BARTER

Project# :UA PWSID

WORK Order :70003

Report Completed :10/04/93

:08/21/93 @ 11:40 hrs. Collected :08/24/93 @ 12:00 hrs. Received

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits		Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Bromobenzene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Bromochloromethane	0.200	U	mg/Kg	EPA 8260		08/25		KWM
Bromodichloromethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Bromoform	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromomethane	0.200	บ	mg/Kg	EPA 8260			09/09	KWM
n-Butylbenzene	0.200	U	mg/Kg	EPA 8260		-	09/09	KWM
sec-Butylbenzene	0.200	U	nng/Kg	EPA 8260			09/09	KWM
rt-Butylbenzne	0.200	U	nng/Kg	EPA 8260			09/09	KWM
Trbon Tetrachloride	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Chlorobenzene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Chloroethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Chloroform	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Chloromethane	0.200		mg/Kg	EPA 8260			09/09	KWM
2-Chlorotoluene	0.200		mg/Kg	EPA 8260			09/09	KWM
4-Chlorotoluene	0.200	U	mg/Kg	EPA 8260	•		09/09	
Dibromochloromethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
12Dibromo3Chloropropane	0.200		mg/Kg	EPA 8260			09/09	KWM
1,2-Dibromoethane	0.200		mg/Kg	EPA 8260			09/09	KWM
Dibromomethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
1,2-Dichlorobenzene	0.200		mg/Kg	EPA 8260			09/09	KWH
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Dichlorodifluoromethane	0.200		mg/Kg	EPA 8260			09/09	KWM
1,1-Dichloroethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
1,2-Dichloroethane	0.200		mg/Kg	EPA 8260			09/09	KWM
1,1-Dichloroethene	0.200		mg/Kg	EPA 8260			09/09	KWM
cis-1,2-Dichloroethene	0.200		mg/Kg	EPA 8260			09/09	KWM
trans1,2-Dichloroethene	0.200		mg/Kg	EPA 8260			09/09	KWM
1,2-Dichloropropane	0.200		mg/Kg	EPA 8260			09/09	KWM
1,3-Dichloropropane	0.200		mg/Kg	EPA 8260			09/09	KWM
2,2-Dichloropropane	0.200		mg/Kg	EPA 8260			09/09	KWM
1,1-Dichloropropene	0.200		mg/Kg	EPA 8260			09/09	KWM
Ethylbenzene	0.200		mg/Kg	EPA 8260			09/09	KWM
Hexachlorobutadiene	0.200		mg/Kg				09/09	KWM
	0.200		mg/Kg				09/09	KWM
Isopropyltoluene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Client Sample ID :BTR-SS14-S04 Matrix chemlab Ref.# :93.4301-7

5633 B STREET ANCHORAGE. AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix	:SOIL						+ A.	X: (907) 561	-5301
Methylene	Chloride	0.200	U	mg/Kg	EPA	8260	08/25	09/09	KWM
Napthalene		2.78		mg/Kg		8260	08/25		KWM
n-Propylbe		0.200	Ŭ	mg/Kg		8260	08/25		KWM
	1126116	0.200	Ü	mg/Kg		8260	08/25		KWM
Styrene	achloroethane	0.200	Ü	mg/Kg		8260	08/25		KWM
	achloroethane	0.200	Ü	mg/Kg		8260	08/25		KWM
		0.200	Ü	mg/Kg		8260	08/25		KWM
Tetrachlo	roethene	0.200	บ	mg/Kg		8260	08/25		KWM
Toluene		0.200	Ü	mg/Kg		8260	08/25		KWM
	chlorobenzene	0.200	Ü			8260	08/25		KWM
	chlorobenzene			mg/Kg		8260	08/25		KWM
	chloroethane	0.200 0.200	U U	mg/Kg		8260	08/25		KWM
	chloroethane			mg/Kg			08/25		KWM
Trichloro		0.200	U	mg/Kg		8260	08/25		KWM
	fluoromethane	0.200	U	mg/Kg		8260			KWM
	chloropropane	0.200	U	mg/Kg		8260	08/25		
1,2,4-Tri	nethylbenzene	0.200	บ	mg/Kg		8260	08/25		KWM KWM
	methylbenzene	ं <b>क</b> ्रिकेट स्ट्र	D	mg/Kg		8260	08/25		
Vinyl Chlo		0.200	U	mg/Kg		8260	08/25		KWM
p+m-Xylene	9	0.200	Ŋ	mg/Kg		8260	08/25		KWM
<b>~o-</b> Xylene		293	D	mg/Kg	LPA	8260	08/25	09/09	KWM
Semivolat:	ile Organics					8270			
Phenol		2.10	U	mg/Kg		8270	09/04		M
bis(2-Chlo	oroethyl)ether	2.10	U	mg/Kg		8270	09/04		Manne
2-Chloropt	nenol	2.10	U	mg/Kg		8270	09/04		MTT
1,3-Dichlo	orobenzene	2.10	U	mg/Kg		8270	09/04		MTT
1,4-Dichlo	orobenzene	2.10	U	mg/Kg		8270	09/04		MTT
Benzyl Ald	cohol	2.10	U	mg/Kg		8270	09/04		MTT
1,2-Dichlo	orobenzene	2.10	U	mg/Kg		8270	09/04		MTT
2-Methylph		2.10	U	mg/Kg		8270	09/04		MTT
bis(2-Chlo	oroisopropyl)e	2.10	U	mg/Kg		8270	09/04		MTT
4-Methylph	nenol	2.10	U	mg/Kg		8270	09/04		MTT
n-Nitroso-	-di-n-Propylam	2.10	U	mg/Kg		8270	09/04		MTT
Hexachlor	oethane	2.10	U	mg/Kg		8270	09/04		MTT
Nitrobenze	ene	2.10	U	mg/Kg		8270	09/04		MTT
Isophorone		2.10	Ü	mg/Kg		8270	09/04		MTT
2-Nitrophe		2.10	U	mg/Kg		8270	09/04		MTT
2,4-Dimeth		2.10	U	mg/Kg		8270	09/04		MTT
Benzoic Ad		2.10	U	mg/Kg		8270	09/04		MTT
	oroethoxy)Meth	2.10	Ü	mg/Kg		8270	09/04		MTT
2,4-Dichlo		2.10	U	mg/Kg		8270	09/04		MTT
	chlorobenzene	2.10	Ü	mg/Kg		8270	09/04		MTT
Naphthaler		2.10	U	mg/Kg		8270	09/04		MTT
4-Chloroar		2.10	Ü	mg/Kg		8270	09/04		MTT
	obutadiene	2.10	U	mg/Kg		8270	09/04		MTT
	3-Methylphenol	2.10	U	mg/Kg		8270	09/04		MTT
	aphthalene	<b>≫5.84</b>		ng/Kg		8270	09/04		MTT
	ocyclopentadie	2.10	U	mg/Kg		8270	09/04 09/04		MTT
	chlorophenol	2.10	U	mg/Kg		8270			MTT MT <u>T</u>
	chlorophenol	2.10	U	mg/Kg		8270	09/04 09/04		
2-Chlorona	aphthalene	2.10	U	mg/Kg	EFA	8270	03/04	03/23	r D



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

	ENVIRONMENTAL							
SINCE 1908		REPO	YSIS	5633 B STREET ANCHORAGE, AK 99518				
Chemlab Ref.	: 93.4301-7				TEL: (907) 5	62-2343		
Client Sample	D :BTR-5514-504				FAX: (907) 5	61-5301		
Matrix	:SOIL				60 (64 00 (00	MT		
		2.10 U	mg/Kg	EPA 8270	09/04 09/29			
2-Nitroani.	Line	2.10 U	mg/Kg	EPA 8270	09/04 09/29 09/04 09/29			
Dimethylph	Cuarace	2.10 U	mg/Kg	EPA 8270	09/04 09/29			
Acenaphthy	reus Teus	2.10 U	mg/Kg	EPA 8270	09/04 09/29			
2,6-Dinitr 3-Nitroani	) ine	2.10 U	mg/Kg	EPA 8270	09/04 09/29			
Acenaphthe	ne Tille	2.10 U	mg/Kg	EPA 8270	09/04 09/29			
2,4-Dinitr	ophenol	2.10 U	mg/Kg	EPA 8270 EPA 8270	09/04 09/29	TM (		
4-Nitrophe	nol	2.10 U	mg/Kg	EPA 8270	09/04 09/29	TH 6		
Dibenzofur	an	2.10 U	mg/Kg	EPA 8270	09/04 09/29	TM 6		
2,4-Dinitr	otoluene	2.10 U	mg/Kg	EPA 8270	09/04 09/29	HT e		
Diethvloht	halate	2.10 U	mg/Kg mg/Kg	EPA 8270	09/04 09/29	TM e		
4-Chloroph	enyl-Phenylet		mg/Kg	EPA 8270	09/04 09/2	9 MT		
Fluorene		2.10 U 2.10 U	mg/Kg	EPA 8270	09/04 09/2	9 MT		
4-Nitroani	line	2.10 U	mg/Kg	EPA 8270	09/04 09/2	9 MT 9 . MT		
4,6-Dinit	ro-2-Methylphe	2.10 U	mg/Kg	EPA 8270	09/04 09/2 09/04 09/2			
n-Nitrosoc	liphenylamine	2.10 U	_	EPA 8270	09/04 09/2			
4-Bromopne Hexachlor	enyl-Phenyleth	2.10 U	<u> </u>	EPA 8270	09/04 09/2	-		
Pentachlo:	rophenol	2.10 U		EPA 8270	09/04 09/2			
Phenanthr	FODITETION	2.10 U		EPA 8270	09/04 09/2			
Anthracen		2.10 U		EPA 8270 EPA 8270	09/04 09/2	IM e		
di-n-Buty	lphthalate	2.10 U		EPA 8270	09/04 09/2	29 MI		
Fluoranth	ene	2.10 U		EPA 8270	09/04 09/2	29 MJ		
Pyrene		2.10 U		EPA 8270	09/04 09/2	29 MT		
Rutvlbenz	ylphthalate	2.10 U		EPA 8270	09/04 09/	29 MI		
3.3-Dichl	orobenzidine	2.10 U 2.10 U		EPA 8270	09/04 09/2	29 M3		
Benzo(a)A	nthracene	2.10 U	·	EPA 8270	09/04 09/3	29 MT		
Chrysene		2.10		EPA 8270	09/04 09/ 09/04 09/			
bis(2-Eth	ylhexyl)Phthal lphthalate	2.10 U		EPA 8270	09/04 09/			
01-N-UCLY	luoranthene	2.10	J mg∕Kg	EPA 8270	09/04 09/			
Benzo(p):	luoranthene	2.10		EPA 8270	09/04 09/			
Denzo(2)	Pyrene		J mg/Kg	EPA 8270 EPA 8270	09/04 09/	29 <b>M</b> '		
Indepo(1	2.3-cd)Pyrene		U mg/Kg	EPA 8270	09/04 09/	29 H		
Dibenz(a	h)Anthracene	2.10		EPA 8270	09/04 09/	29 M		
Benzo(g,	n,i)Perylene	2.10	u mg/Kg	ELA OZIO				
				EPA 3050 Digest	•			
Sample P	reparation			- qua	l. Com			
Total Me	tals Analysis			EPA	n/a	ת פני		
ICP Scre	en, ICF	2100	mg/Kg	EPA 6010	08/27 08/ 08/27 08/	/29 D		
Aluminum			U mg/Kg	EPA 6010	08/27 08/			
Antimony			U mg/Kg	EPA 6010	08/27 08/			
Arsenic Barium		20	mg/Kg	EPA 6010	08/27 08/			
	Th.	2.6	U mg/Kg	EPA 6010	08/27 08			
Berylliu Cadmium	ши	2.6	U mg/Kg	EPA 6010 EPA 6010 J	G   08/27 08			
Calcium		9300	mg/Kg		08/27 08	/29 [ /29 [		
Chromium		5.1	mg/Kg	EPA 6010 EPA 6010	08/27 08			
	•		U mg/Kg	EPA COIO	08/27 08	/29 I		
Cobalt Copper	`	5.2 4.9 6500	mg/Kg mg/Kg	EPA 6010 EPA 6010		/29 [		

**\$565** Member of the SGS Group (Société Générale de Surveillance)

10. 1/5/14



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908		1	REPC	ORT of ANA	LYSIS				5633 B ST ANCHORAGE, AK	
Chemlab Ref.# Client Sample ID Matrix	:93.4301-7 :BTR-SS14-S04 :SOIL						quai	com	TEL: (907) 562 FAX: (907) 561	.2343
Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc		16 4500 63 2.6 5.1 300 52 2.6 66 0.25 7.5	บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA EPA EPA EPA EPA EPA EPA EPA EPA	6010 6010 6010 6010 6010 6010 6010 7841	ว้ นว	G I	08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29 08/27 08/29	DE DE DE DE DE DE DE DE DE DE DE DE DE D

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analy

LT = Less Than GT = Greater Than



See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

emlab Ref.# :93.4616-1 Client Sample ID :BTR-SS14-2S05

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

PWSID

:ICF KAISER ENGINEERING

Ordered By :RAY MORRIS Project Name :DEW LINE Project#

:BARTER :UA

WORK Order :70612

Report Completed :10/28/93

Collected 09:45 :09/02/93 hrs. Received :09/04/93 @ 11:00 hrs.

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	Results	QC Qual	Units		Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics					EPA 826	.0			
Benzene			mg/Kg		EPA 826		09/07	10/01	KWM
Bromobenzene	0.040	U	mg/Kg		EPA 826			10/01	KWM
Bromochloromethane	0.040	U	mg/Kg		EPA 826			10/01	KWM
Bromodichloromethane	0.040	Ü	mg/Kg		EPA 826			10/01	KWM
Bromoform	0.040	U	mg/Kg		EPA 826			10/01	KWM
Bromomethane	0.040	U	mg/Kg		EPA 826			10/01	KWM
n-Butylbenzene	0.040	U.	mg/Kg		EPA 826	0		10/01	KWM
sec-Butylbenzene	0.040	Ü	mg/Kg		EPA 826	0		10/01	KWM
tert-Butylbenzne	0.040	U	mg/Kg		EPA 826			10/01	KWM
arbon Tetrachloride	0.040	U	mg/Kg		EPA 826			10/01	KWM
Chlorobenzene	0.040	U	mg/Kg		EPA 826			10/01	KWM
Chloroethane	0.040	U	mg/Kg		EPA 826			10/01	KWM
Chloroform	0.040	U	mg/Kg		EPA 826			10/01	KWM
Chloromethane	0.040	U	mg/Kg		EPA 826			10/01	KWM
2-Chlorotoluene	0.040	U	mg/Kg		PA 826			10/01	KWM
4-Chlorotoluene	0.040	U	mg/Kg		EPA 826			10/01	KWM
Dibromochloromethane	0.040	U	mg/Kg	1	PA 826	0		10/01	KWM
12Dibromo3Chloropropane	0.040	U	mg/Kg		EPA 826			10/01	KWM
1,2-Dibromoethane	0.040	U	mg/Kg	1	PA 826	0		10/01	KWM
Dibromomethane	0.040	U	mg/Kg	1	EPA 826	0		10/01	KWM
1,2-Dichlorobenzene	0.040	U	mg/Kg	1	EPA 826	0	09/07		KWM
1,3-Dichlorobenzene	0.040	U	mg/Kg	1	EPA 826	0		10/01	KWM
1,4-Dichlorobenzene	0.040	U	mg/Kg	Ī	PA 826	0	09/07		KWM
Dichlorodifluoromethane	0.040	U	mg/Kg	i	EPA 826	0		10/01	KWM
1,1-Dichloroethane	0.040	U	<b>mg∕K</b> g	F	EPA 826	0	09/07		KWM
1,2-Dichloroethane	0.040	U	mg/Kg	I	PA 826	0	09/07		KWM
1.1-Dichloroethene	0.040	U	mg/Kg		PA 826	0	09/07		KWM
cis-1,2-Dichloroethene	0.069	•	mg/Kg	, E	PA 826	0	09/07		KWM
trans1,2-Dichloroethene	0.040	U	mg/Kg	E	PA 8260	0	09/07		KWM
1,2-Dichloropropane	0.040	U	mg∕Kg	Ę	PA 8260	0	09/07		KWM
1,3-Dichloropropane	0.040	U	mg/Kg	E	PA 8260	)	09/07		KWM
2,2-Dichloropropane	0.040	U	mg/Kg	F	PA 8260	)	09/07		KWM
1,1-Dichloropropene	0.040	U	mg/Kg	E	PA 8260	)	09/07		KWM
Ethylbenzene	0.040	U	mg/Kg	E	PA 8260	)	09/07		KWM
Hexachlorobutadiene	0.040	U	mg/Kg	E	PA 8260	)	09/07		KWM
Isopropylbenzene	0.040	U	mg/Kg	E	PA 8260	)	09/07		KWM
Isopropyltoluene	0.040	U	mg/Kg	E	PA 8260	)	09/07		KWM



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-1 Client Sample ID :BTR-SS14-2S05

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

Matrix :SOIL						F	AX: (907) 561	1-5301
Methylene Chloride	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
Napthalene	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
n-Propylbenzene	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
Styrene	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
1112-Tetrachloroethane	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
1122-Tetrachloroethane	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
,Tetrachloroethene		U	mg/Kg	EPA	8260	09/07	10/01	KWM
Toluene State Control	~0.134	, v	mg/Kg	# EPA	8260	09/07	10/01	KWM
1,2,3-Trichlorobenzene	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
1,2,4-Trichlorobenzene	0.040	Ü	mg/Kg	EPA	8260	09/07	10/01	KWM
1,1,1-Trichloroethane	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
1,1,2-Trichloroethane	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
Trichloroethene	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
Trichlorofluoromethane	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
1,2,3-Trichloropropane	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
1,2,4-Trimethylbenzene	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
1,3,5-Trimethylbenzene	0.040	Ü	mg/Kg	EPA	8260	09/07	10/01	KWM
Vinyl Chloride	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM
p+m-Xylene	0.040	U	mg/Kg		8260	09/07	10/01	KWM
o-Xylene	0.040	U	mg/Kg	EPA	8260	09/07	10/01	KWM

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than



GT = Greater Than



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4616-3

Client Sample ID :BTR-SS14-2S07 Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS

Project Name Project#

PWSID

:BARTER

:DEW LINE

:UA

WORK Order :70612

Report Completed :10/28/93

Collected :09/02/93 @ 10:45 hrs. Received :09/04/93 @ 11:00 hrs. Technical Director:STEPHEN,C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Percent Solids	64.5		%	SM17 2540G			09/07	EAL
	Hydrocarbons EPH	4820		mg/Kg	3510/3550/8100M			09/24	JBH
	Hydrocarbons VPH	358	∴Ď >	mg/Kg	EPA 5030/8015M		09/07	09/10	WLS
	Volatile Organics				EPA 8260				
	Benzene	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
	Bromobenzene	0.400	U	mg/Kg	EPA 8260			09/30	KWM
	Bromochloromethane	0.400	U	mg/Kg	EPA 8260			09/30	KWM
4	Bromodichloromethane	0.400	บ	mg/Kg	EPA 8260			09/30	KWM
	romoform	0.400	U	mg/Kg	EPA 8260			09/30	KWM
	-bromomethane	0.400	U	mg/Kg	EPA 8260			09/30	KWM
	n-Butylbenzene	£3410	.;D. √	mg/Kg	EPA 8260		09/07	09/30	KWM
	sec-Butylbenzene	<b>21.28</b>	·D	mg/Kg	EPA 8260		09/07	09/30	KWM
	tert-Butylbenzne	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
	Carbon Tetrachloride	0.400	U	mg/Kg	EPA 8260		09/07	09/30	KWM
	Chlorobenzene	0.400	U	<b>mg/K</b> g	EPA 8260			09/30	KWM
	Chloroethane	0.400	U	mg/Kg	EPA 8260			09/30	KWM
	Chloroform	0.400	U	mg/Kg	EPA 8260			09/30	KWM
	Chloromethane	0.400	U	mg/Kg	EPA 8260			09/30	KWM
	2-Chlorotoluene	0.400	U	mg/Kg	EPA 8260			09/30	KWM
	4-Chlorotoluene	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	Dibromochloromethane	0.400	U	mg/Kg	EPA 8260			09/30	KWM
	12Dibromo3Chloropropane	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dibromoethane	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	Dibromomethane	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dichlorobenzene	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	1,3-Dichlorobenzene	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	1,4-Dichlorobenzene Dichlorodifluoromethane	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	1,1-Dichloroethane	0.400	U	mg/Kg	EPA 8260		09/07	•	KWM
	1,2-Dichloroethane	0.400 0.400	U U	mg/Kg	EPA 8260		09/07		KWM
	1,1-Dichloroethene	0.400	บ	mg/Kg	EPA 8260		09/07		KWM
	cis-1,2-Dichloroethene	0.400	Ü	mg/Kg	EPA 8260		09/07		KWM
	trans1,2-Dichloroethene	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dichloropropane	0.400	U	mg/Kg	EPA 8260		09/07		KWM
	1,3-Dichloropropane	0.400	บ	mg/Kg mg/Kg	EPA 8260 EPA 8260		09/07		KWM
-	2,2-Dichloropropane	0.400	Ü	mg/Kg	EPA 8260		09/07		KWM
	1-Dichloropropene	0.400	U	mg/Kg	EPA 8260		09/07		KWM
4	- preumorobrobette	0.700	U	mg/ Ng	ELLH 0700		09/07	09/30	KWM



" o-Xylene

## COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET ANCHORAGE, AK 99518 Chemlab Ref.# :93.4616-3 TEL: (907) 562-2343 Client Sample ID :BTR-SS14-2S07 FAX: (907) 561-5301 :SOIL Matrix KWM 09/07 09/30 mq/Kg EPA 8260 Ethylbenzene KWM 09/07 09/30 mg/Kg EPA 8260 0.400 U Hexachlorobutadiene KWM 09/07 09/30 EPA 8260 mg/Kg 0.637 D *Isopropylbenzene KWM 09/07 09/30 mg/Kg EPA 8260 D 2.03 p-Isopropyltoluene KWM 09/07 09/30 U **EPA** 8260 0.400 mg/Kg Methylene Chloride KWM 09/07 09/30 mg/Kg EPA 8260 46.0 Napthalene KWM 09/07 09/30 D mg/Kg **EPA 8260** 1.17 n-Propylbenzene KWM 09/07 09/30 0.400 U mg/Kg **EPA** 8260 Styrene KWM 09/07 09/30 **EPA 8260** U mg/Kg 0.400 1112-Tetrachloroethane 09/07 09/30 KWM EPA 8260 0.400 U mg/Kg 1122-Tetrachloroethane KWM 09/07 09/30 EPA 8260 0.400 U mq/Kq Tetrachloroethene KWM 09/07 09/30 EPA 8260 0.400 U mg/Kg Toluene 09/07 09/30 KWM EPA 8260 U mg/Kg 0.400 1,2,3-Trichlorobenzene 09/07 09/30 KWM EPA 8260 0.400 mg/Kg 1,2,4-Trichlorobenzene KWM 09/07 09/30 EPA 8260 0.400 mq/Kg 1,1,1-Trichloroethane 09/07 09/30 KWM EPA 8260 0.400 H mg/Kg 1,1,2-Trichloroethane 09/07 09/30 KWM EPA 8260 0.400 U mg/Kg Trichloroethene 09/07 09/30 KWM EPA 8260 0.400 U mg/Kg Trichlorofluoromethane KWM 09/07 09/30 EPA 8260 0.400 U mg/Kg 1,2,3-Trichloropropane KWM **EPA 8260** 09/07 09/30 D mg/Kg 1,2,4-Trimethylbenzene 13.3 KWM 09/07 09/30 EPA 8260 mg/Kg 2.93 D ₹21,3,5-Trimethylbenzene KMM 09/07 09/30 EPA 8260 0.400 U mg/Kg Vinyl Chloride 09/07 09/30 2.87 **EPA 8260** D mg/Kg p+m-Xylene 09/07 09/30 2.11 D **EPA** 8260 mg/Kg .

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

4.98

D = Secondary dilution.

UA = Unavailable

NA = Not AnalyzedLT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4616-4

Client Sample ID :BTR-SS14-2S07 SPIKE

Matrix

:SOIL

**5633 B STREET** ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name

:RAY MORRIS

Project# PWSID

:DEW LINE :BARTER

:UA

WORK Order

Collected

Received

:70612

Report Completed :10/28/93

:09/02/93

0 10:45 hrs. @ 11:00 hrs.

Technical Director: STEPHEN C. EDE

:09/04/93

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. SAMPLES RUN WITH SPIKE AND SPIKE DUP FROM WORK ORDER 93.4626. FOR

8100 EPH SPIKE CONCENTRATIONS AND RECOVERIES, SEE QA/QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	64.5 7690	D	% mg/Kg	SM17 2540G 3510/3550/8100M		09/16	09/07 10/04	EAL JBH

See Special Instructions Above See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

:93.4616-5 Chemlab Ref.#

Client Sample ID :BTR-SS14-2S07 SPIKE DUPLICATE

Matrix

:SOIL

:ICF KAISER ENGINEERING

Client Name Ordered By Project Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

:70612

Report Completed :10/28/93

Collected Received

:09/02/93

@ 10:45 hrs :09/04/93 @ 11:00 hrs

5633 B STREET

TEL: (907) 562-2343

FAX: (907) 561-5301

ANCHORAGE, AK 99518

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. SAMPLES RUN WITH SPIKE AND SPIKE DUP FROM WORK ORDER 93.4626. FOR

8100 EPH SPIKE CONCENTRATIONS AND RECOVERIES, SEE QA/QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	64.5 11000	D	% mg∕Kg	SM17 2540G 3510/3550/8100M		09/16	09/07 10/04	EAL JBH

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than





Gud 94 REPORT of ANALYSIS

Client Sample ID :BTR-SS14-2S0%-3 Matrix

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name Project# PWSID :UA

:DEW LINE :BARTER

WORK Order :70612 Report Completed :10/28/93

Collected @ 10:15 hrs. **:09/**02/93 Received :09/04/93 @ 11:00 hrs.

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Parameter	QC Results Qua		Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics			EPA 8260				
Benzene	0.020 ប	mg/Kg	EPA 8260		00/07	00 (22	
Bromobenzene	0.020 U	mg/Kg	EPA 8260			09/23	HCH
Bromochloromethane	0.020 U	mg/Kg	EPA 8260			09/23	MCM
Bromodichloromethane	0.020 U	mg/Kg	EPA 8260			09/23	MCM
Bromoform	0.020 U	mg/Kg	EPA 8260			09/23	MCM
Bromomethane	0.020 U	mg/Kg	EPA 8260			09/23	MCM
n-Butylbenzene	0.020 U	mg/Kg	EPA 8260			09/23	MCM
sec-Butylbenzene	0.020 U	mg/Kg	EPA 8260			09/23	MCM
tert-Butylbenzne	0.020 U	mg/Kg	EPA 8260			09/23	MCM
arbon Tetrachloride	0.020 U	mg/Kg	EPA 8260			09/23	MCM
Chlorobenzene	0.020 U	mg/Kg	EPA 8260		09/07	09/23	MCM
Chloroethane	0.020 U	mg/Kg	EPA 8260			09/23	MCM
Chloroform	0.020 U	mg/Kg	EPA 8260		09/07		MCM
Chloromethane	0.020 U	mg/Kg	EPA 8260		09/07		MCH
2-Chlorotoluene	0.020 U	mg/Kg	EPA 8260		09/07		MCM
4-Chlorotoluene	0.020 U	mg/Kg	EPA 8260		09/07		MCM
Dibromochloromethane	0.020 U	mg/Kg	EPA 8260		09/07		MCM
12Dibromo3Chloropropane	0.020 U	mg/Kg	EPA 8260		09/07		MCM
1,2-Dibromoethane	0.020 U	mg/Kg	EPA 8260		09/07		MCM
Dibromomethane	0.020 U	mg/Kg	EPA 8260		09/07		MCM
1,2-Dichlorobenzene	0.020 U	mg/Kg	EPA 8260		09/07		HCM
1,3-Dichlorobenzene	0.020 U	mg/Kg	EPA 8260		09/07		MCH
1,4-Dichlorobenzene	0.020 U	mg/Kg	EPA 8260		09/07		MCM
Dichlorodifluoromethane	0.020 U	mg/Kg	EPA 8260		09/07		MCM
1,1-Dichloroethane	0.020 U	mg/Kg	EPA 8260		09/07		MCM
1,2-Dichloroethane	0.020 บ	mg/Kg	EPA 8260		09/07		MCM
1,1-Dichloroethene	0.020 บ	mg/Kg	EPA 8260		09/07 09/07		MCM
cis-1,2-Dichloroethene	0.020 ປ	mg/Kg	EPA 8260				MCM
trans1,2-Dichloroethene	0.020 U	mg/Kg	EPA 8260		09/07 09/07		MCM
1,2-Dichloropropane	0.020 U	mg/Kg	EPA 8260		09/07		MCM
1,3-Dichloropropane	0.020 ប	mg/Kg	EPA 8260		09/07		MCM
2,2-Dichloropropane	0.020 U	mg/Kg	EPA 8260		09/07		MCM
1,1-Dichloropropene	0.020 U	mg/Kg	EPA 8260		09/07		MCM
Ethylbenzene	0.020 U	mg/Kg	EPA 8260		09/07		MCM
Hexachlorobutadiene	0.020 บ	mg/Kg	EPA 8260		09/07		MCM
Isopropylbenzene	0.020 U	mg/Kg	EPA 8260		09/07		MCM
Isopropyltoluene	0.020 U	mg/Kg	EPA 8260		09/07		MCM
		3,	Z 11 0200		03/01	03/23	MCH



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES 11.304

Chemlab Ref.# :93.4616-2 Client Sample ID :BTR-SS14-250\$ :SOIL Matrix

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

naci i x	016							
Methylene Chlorid	e 1155 256 200.031	: ., 0	mg/Kg	EPA	8260	09/07	09/23	MCM
Napthalene	0.020	Ü	mg/Kg	EPA	8260	09/07	09/23	MCM
n-Propylbenzene	0.020	Ŭ	mg/Kg	EPA	8260	09/07	09/23	MCM
Styrene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1112-Tetrachloroe	thane 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1122-Tetrachloroe	thane 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
Tetrachloroethene	0.023	1, 11.	∴mg/Kg	EPA	8260	09/07	09/23	MCM
Toluene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1,2,3-Trichlorobe	nzene 0.020	U	mg/Kg	EPA	8260	09/07	09/23	HCM
1,2,4-Trichlorobe	nzene 0.020	U	mg∕Kg	EPA	8260	09/07	09/23	MCM
1,1,1-Trichloroet	hane 0.020	U	mg/Kg	EPA	8260	09/07	09/23	HCM
1,1,2-Trichloroet	hane 0.020	U	<b>mg/K</b> g	EPA	8260	09/07	09/23	MCM
Trichloroethene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
Trichlorofluorome	thane 0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
1,2,3-Trichloropre	opane 0.020	U	<b>mg/K</b> g	EPA	8260	09/07	09/23	MCM
1,2,4-Trimethylbe		U	mg/Kg	EPA	8260	09/07	09/23	MCM
1,3,5-Trimethylbe		U	mg/Kg	EPA	8260	09/07	09/23	MCM
Vinyl Chloride	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
p+m-Xylene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM
o-Xylene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	MCM

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not AnalyzedLT = Less Than

GT = Greater Than



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

cnemlab Ref.# :93.4301-4 Client Sample ID :BTR-SS14-SD01

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

hrs.

hrs.

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:DEW LINE

PWSID :UA

:RAY MORRIS

:BARTER

WORK Order Report Completed

Received

**:70**003 :10/04/93

Collected

:08/21/93 @ 13:30 :08/24/93 @ 12:00

Technical Director: STEPHEN, C. EDE

Released By:

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE. B = THIS FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED BLANK AS WELL AS IN THE SAMPLE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In <b>it</b>
Volatile Organics				EPA 8260			_~~~~	
Benzene	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromobenzene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Bromochloromethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Bromodichloromethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
omoform	0.200	U	mg/Kg	EPA 8260			09/09	KWM
omomethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Butylbenzene	4.22	D	mg/Kg	EPA 8260			09/09	KWM
sec-Butylbenzene		D	mg/Kg	EPA 8260			09/09	KWM
	0.256	D.	mg/Kg	EPA 8260			09/09	KWM
Carbon Tetrachloride	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Chlorobenzene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Chloroethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Chloroform	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Chloromethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
2-Chlorotoluene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
4-Chlorotoluene	0.200	U	mg/Kg	EPA 8260			09/09	KWM
Dibromochloromethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
12Dibromo3Chloropropane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
1,2-Dibromoethane	0.200	U	mg/Kg	EPA 8260		08/25		KWM
Dibromomethane	0.200	U	mg/Kg	EPA 8260		08/25		KWM
1,2-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25		KWM
1,3-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25		KWM
1,4-Dichlorobenzene	0.200	U	mg/Kg	EPA 8260		08/25		KWM
Dichlorodifluoromethane	0.200	U	mg/Kg	EPA 8260		08/25		KWM
1,1-Dichloroethane	0.200	U	mg/Kg	EPA 8260		08/25		KWM
1,2-Dichloroethane	0.200		mg/Kg	EPA 8260		08/25		KWM
1,1-Dichloroethene	0.200		mg/Kg	EPA 8260		08/25		KWM
cis-1,2-Dichloroethene	0.200		mg/Kg	EPA 8260		08/25		KWM
trans1,2-Dichloroethene	0.200		mg/Kg	EPA 8260		08/25		KWM
1,2-Dichloropropane	0.200		mg/Kg	EPA 8260		08/25		KWM
1,3-Dichloropropane	0.200		mg/Kg	EPA 8260		08/25		KWM
2,2-Dichloropropane	0.200		mg∕Kg	EPA 8260		08/25		KWM
-Dichloropropene	0.200	U	mg/Kg	EPA 8260		08/25		KWM
						,	,	



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

chemlab Ref.# :93.430	11_4		oni oi	MALI STS	5633 <b>D</b> C	TOCCT
Client Sample ID :BTR-SS	14_CD01				5633 B S ANCHORAGE, AR	( 9951R
Matrix :SOIL	14-2001				TEL. (907) 56	62-2343
.5012					FAX (907) 56	51-5301
Ethylbenzene	A 700	_				
Hexachlorobutadiene	0.728		mg/Kg	EPA 8260	08/25 09/09	KWM
	0.200		mg/Kg	EPA 8260	08/25 09/09	KWM
Isopropylbenzene	0.681		mg/Kg	EPA 8260	08/25 09/09	KWM
p-Isopropyltoluene	:2.47	a	mg/Kg	EPA 8260	08/25 09/09	
Methylene Chloride	0.200	Ü	mg/Kg	EPA 8260		KWM
<b>Na</b> pthalene	14.9	D	mg/Kg	EPA 8260	08/25 09/09	KWM
∜ <b>n</b> -Propylbenzene	<b>50.918</b>	ď	mg/Kg	EPA 8260	08/25 09/09	KWM
Styrene	0.200	Ü	mg/Kg		08/25 09/09	KWM
1112-Tetrachloroethane	0.200			EPA 8260	08/25 09/09	KWM
1122-Tetrachloroethane	0.200		mg/Kg	EPA 8260	08/25 09/09	KWM
Tetrachloroethene			mg/Kg	EPA 8260	<b>08</b> /25 09/09	KWM
Toluene	0.200		mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,3-Trichlorobenzene	₹0.406		mg/Kg	EPA 8260	08/25 09/09	KWM
1 2 4 Trichlorobenzene	0.200		mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,4-Trichlorobenzene	0.200		mg/Kg	EPA 8260	08/25 09/09	KWM
1,1,1-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,1,2-Trichloroethane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	
Trichloroethene	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
Trichlorofluoromethane	0.200	U	mg/Kg	EPA 8260	00/25 09/09	KWM
1,2,3-Trichloropropane	0.200	U	mg/Kg	EPA 8260	08/25 09/09	KWM
1,2,4-Trimethylbenzene	14.7	D	mg/Kg	EPA 8260	08/25 09/09	KWM
1,3,5-Trimethylbenzene	<b>9.32</b>	D	mg/Kg	EPA 8260	08/25 09/09	KWM
Vinyl Chloride	0.200	Ū	mg/Kg	EPA 8260	08/25 09/09	KWM
p+m-Xylene	5.84	Ď	mg/Kg	EPA 8260	08/25 09/09	KW
o-Xylene	4.46		mg/Kg		08/25 09/09	KWM
•	200	<b>D</b> ,	iig/ kg	EPA 8260	08/25 09/09	KWM
Semivolatile Organics	10,30			772 CO76		
Phenol	2.20	U	/!/-	EPA 8270		
bis(2-Chloroethyl)ether	2.20		mg/Kg	EPA 8270	<b>09/</b> 04 09/28	MTT
2-Chlorophenol		U	mg/Kg	EPA 8270	09/04 09/28	MTT
1,3-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MTT
1,4-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270	09/04 09/28 .	MTT
Benzyl Alcohol	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MTT
1,2-Dichlorobenzene	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MTT
7-Mothylphonal	2.20	U	<b>mg∕</b> Kg	EPA 8270	09/04 09/28	MTT
2-Methylphenol	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MTT
bis(2-Chloroisopropyl)e		U	<b>mg</b> ∕Kg	EPA 8270	09/04 09/28	MTT
4-Methylphenol	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MTT
n-Nitroso-di-n-Propylam	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Hexachloroethane	2.20	U	mg/Kg	EPA 8270	09/04 09/28	
Nitrobenzene	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MTT
<b>Iso</b> phorone	1.49	J	mg/Kg	EPA 8270		MTT
2-Nitrophenol	2.20	U	mg/Kg	EPA 8270	09/04 09/28	MTT
2,4-Dimethylphenol		U	mg/Kg	EPA 8270	09/04 09/28	HTT
Benzoic Acid		Ü	mg/Kg	EPA 8270	09/04 09/28	MTT
bis(2-Chloroethoxy)Meth		Ü	mg/Kg		09/04 09/28	MTT
2,4-Dichlorophenol		Ü	mg/Kg mg/Kg	EPA 8270	09/04 09/28	MTT
1,2,4-Trichlorobenzene		Ü	mg/kg	EPA 8270	<b>09</b> /04 09/28	MTT
Naphthalene		D s	mg/kg mag/Kg	EPA 8270	09/04 09/28	MTT
4-Chloroaniline		U		EPA 8270	09/04 09/28	MTT
Hexachlorobutadiene		U	mg/Kg	EPA 8270	09/04 09/28	MTT
4-Chloro-3-Methylphenol			mg/Kg	EPA 8270	<b>09/</b> 04 09/28	MTT _
		U D	mg/Kg	EPA 8270	09/04 09/28	MTT
···· · · · · · · · · · · · · · · · · ·		U .	mg/Kg	EPA 8270	09/04 09/28	MTT



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908		REPO	RT of AN	ALYSIS	
Chemlab Ref.# :93.4301-4		•		, <del></del>	5633 B STREET ANCHORAGE, AK 99518
Client Sample ID :BTR-SS14-SD01					TEL: (907) 562-2343
Matrix :SOIL					FAX: (907) 561-5301
Matrix					
Hexachlorocyclopentadie	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MT
2,4,6-Trichlorophenol	2.20	Ŭ	mg/Kg	EPA 8270	09/04 09/28 MT
2,4,5-Trichlorophenol	2.20	Ü	mg/Kg	EPA 8270	09/04 09/28 MT
2-Chloronaphthalene	2.20	ŭ	mg/Kg	EPA 8270	09/04 09/28 MT
	2.20	บั	mg/Kg	EPA 8270	09/04 09/28 MT
2-Nitroaniline	2.20	Ü	mg/Kg	EPA 8270	09/04 09/28 MT
Dimethylphthalate	2.20	บ		EPA 8270	09/04 09/28 MT
Acenaphthylene	2.20	บ	mg/Kg	EPA 8270	09/04 09/28 MT
2,6-Dinitrotoluene	2.20	_	ng/Kg	EPA 8270	09/04 09/28 MT
3-Nitroaniline		Ü	mg/Kg	EPA 8270	09/04 09/28 MT
Acenaphthene	2.20	U	mg/Kg		09/04 09/28 MT
2,4-Dinitrophenol	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MT.
4-Nitrophenol	2.20	U	mg/Kg	EPA 8270	
Dibenzofuran	2.20	U	mg/Kg	EPA 8270	= - • · · •
2,4-Dinitrotoluene	2.20	U	mg/Kg	EPA 8270	· · · · · · · · · · · · · · · · · ·
Diethylphthalate	2.20	U	mg/Kg	EPA 8270	
4-Chlorophenyl-Phenylet	2.20	U	mg/Kg	EPA 8270	09/04 09/28 . MT.
Fluorene	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MT.
4-Nitroaniline	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MT.
4,6-Dinitro-2-Methylphe	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MTT
n-Nitrosodiphenylamine	2.20	U	<b>m</b> g∕Kg	EPA 8270	09/04 09/28 MT
4-Bromophenyl-Phenyleth	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MTT
Hexachlorobenzene	2.20	U	<b>mg</b> ∕Kg	EPA 8270	09/04 09/28 MT7
Pentachlorophenol	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MTI
Phenanthrene	4.79	D	mg/Kg	EPA 8270	09/04 09/28 MT1
Anthracene	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MT7
di-n-Butylphthalate	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MTT
Fluoranthene	2.28	D	mg/Kg	EPA 8270	09/04 09/28 MT3
Pyrene	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MT1
Butylbenzylphthalate	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MTT
3,3-Dichlorobenzidine	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MTT
Benzo(a)Anthracene	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MTT
Chrysene	2.20	U	mg/Kg	EPA 8270	09/04 09/28 MTT
bis(2-Ethylhexyl)Phthal	4.60	В	mg/Kg	EPA 8270	09/04 09/28 MTJ
di-n-Octylphthalate	2.20	ับ	mg/Kg	EPA 8270	09/04 09/28 MTT
Benzo(b)Fluoranthene	2.20	Ū	mg/Kg	EPA 8270	09/04 09/28 MT
Benzo(k)Fluoranthene	2.20		mg/Kg	EPA 8270	09/04 09/28 MT
Benzo(a)Pyrene	2.20		mg/Kg	EPA 8270	09/04 09/28 MT
Indeno(1,2,3-cd)Pyrene	2.20	Ŭ	mg/Kg	EPA 8270	09/04 09/28 MT
Dibenz(a,h)Anthracene	2.20	บั	mg/Kg	EPA 8270	09/04 09/28 MT.
Benzo(g,h,i)Perylene	2.20	Ü	mg/Kg	EPA 8270	09/04 09/28 MT.
Be1120(g,11,1)1 e1 j10110		•	9/ 1/9	2 02.0	30, 10 20, 11
Sample Preparation				EPA 3050 Digest	
Total Metals Analysis				- qual	com
ICP Screen, ICF				EPA	n/a
Aluminum	2000		mg/Kg	EPA 6010	08/27 08/29 DFT
	53	บ	mg/Kg	EPA 6010	08/27 08/29 DFI
Antimony Arsenic	53	บ	mg/Kg	EPA 6010	08/27 08/29 DFI
	29	J	mg/Kg	EPA 6010	08/27 08/29 DFI
Barium	2.7	บ		EPA 6010	08/27 08/29 DFI
Beryllium	2.7	Ü	mg/Kg	EPA 6010 EPA 6010	08/27 08/29 DFI
Cadmium	4400	U	mg/Kg	EPA 6010 EPA 6010 J	08/27 08/29 DFT
Calcium	4400		mg/Kg	ETM OUTO 0	- 1 00/21 00/27 011





ENVIRONMENTAL LABORATORY SERVICES

	ENVIRONMENTAL			
SINCE 1900		REPORT of ANALY	SIS	5633 B STREET ANCHORAGE, AK 9951
Chemlab Ref.* Client Sample Matrix  Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Potassium	:SOIL	53 mg/Kg 5.3 U mg/Kg 16 mg/Kg 6400 mg/Kg 231 mg/Kg 1900 mg/Kg 2.7 U mg/Kg 5.6 mg/Kg 310 mg/Kg	Qual Co EPA 6010 EPA 6010 EPA 6010	08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF
Selenium Silver Sodium Thallium Vanadium Zinc		2.7 U mg/Kg 110 mg/Kg 1.4 U mg/Kg 6.6 mg/Kg 200 mg/Kg	EPA 6010 EPA 7841 EPA 6010 EPA 6010	08/27 08/29 DF. 08/26 08/28 KA' 08/27 08/27 DF: 08/27 08/27 DF.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Th



See Special Instructions Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.#

:93.4301-6

Client Sample ID :BTR-SS14-SD01 DUPLICATE

Matrix

:SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project# PWSID

:BARTER

:UA

WORK Order :70003

:10/04/93 Report Completed

Collected @ 13:45 hrs. :08/21/93 :08/24/93 Received

@ 12:00 hrs. Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Sample Preparation				EPA 3050 Digest				
	Total Metals Analysis				_				
	ICP Screen, ICF				EPA	n/a			
	Aluminum	2400		mg/Kg	EPA 6010		08/27	08/29	DFL
	Antimony	53	U	mg/Kg	EPA 6010			08/29	DFL
	Arsenic	53	U	mg/Kg	EPA 6010		08/27	08/29	DFL
	Barium	27		mg/Kg	EPA 6010			08/29	DFL
	Beryllium	2.7	U	mg/Kg	EPA 6010		08/27	08/29	DFL
	Cadmium	2.7	บ	mg/Kg	EPA 6010		08/27	08/29	DFL
4	Salcium	13000		mg/Kg	EPA 6010		08/27	08/29	DFL
	hromium	36		mg/Kg	EPA 6010		08/27	08/29	DFL
	Cobalt	5.3	U	mg/Kg	EPA 6010		08/27	08/29	DFL
	Copper	14		mg/Kg	EPA 6010		08/27	08/29	DFL
	Iron	6800		mg/Kg	EPA 6010			08/29	DFL
	Lead	170		mg/Kg	EPA 6010			08/29	DFL
	Magnesium	6600		<b>mg∕</b> Kg	EPA 6010			08/29	DFL
	Manganese	77		<b>mg</b> /Kg	EPA 6010			08/29	. DFL
	Molybdenum	2.7	U	mg/Kg	EPA 6010			08/29	DFL
	Nickel	5.6		mg/Kg	EPA 6010			08/29	DFL
	Potassium	280		mg/Kg	EPA 6010			08/29	DFL
	Selenium	5.3	Ü	mg/Kg	EPA 6010			08/29	DFL
	Silver	2.7	U	mg/Kg	EPA 6010			08/29	DFL
	Sodium	120		mg/Kg	EPA 6010			08/29	DFL
	Thallium	1.4	ប	mg/Kg	EPA 7841			08/28	KAW
	Vanadium	8.0		ng/Kg	EPA 6010		-	08/29	DFL
	Zinc	170		mg/Kg	EPA 6010		08/27	08/29	DFL

See Special Instructions Above

See Sample Remarks Above

Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

:93.4301-5 Chemlab Ref.#

Client Sample ID :BTR-SS14-SD01 SPIKE

:SOIL Matrix

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name :ICF KAISER ENGINEERING WORK Order :70003

Ordered By :RAY MORRIS Report Completed :10/04/93 :DEW LINE Project Name Collected :08/21/93

@ 13:30 hrs. :BARTER @ 12:00 hrs. Project# Received :08/24/93 PWSID :UA

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. B ≠ THIS

FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED BLANK AS WELL

AS IN THE SAMPLE.

Parameter		Results	QC Qual	Units	Met	thod	Allowable Limits	Ext. Date	Anal Date	Init
Semivolati	le Organics				EPA	8270				
Phenol		2.40		mg/Kg	EPA	8270		09/04	09/28	MTT
bis(2-Chlo	roethyl)ether	2.20	U	mg/Kg	EPA	8270		09/04	09/28	MTT
2-Chloroph		2.43		mg/Kg		8270		09/04	09/28	MTT
1,3-Dichlo		2.2	U	mg/Kg		8270		09/04	09/28	MTT
1,4-Dichlo	robenzene	2.42		mg/Kg	EPA	8270		09/04	09/28	MTT
Benzyl Alc		2.20	U	mg/Kg		8270		09/04	09/28	MIT
1,2-Dichlo		2.20	U	mg/Kg		8270		09/04	09/28	
2-Methylph		2.20	U	mg/Kg		8270		09/04	09/28	12.00
	roisopropyl)e	2.20	U	mg/Kg		8270		09/04	09/28	MTT
4-Methylph		2.20	U	mg/Kg		8270		09/04	09/28	MIT
	di-n-Propylam	2.91		mg/Kg		8270		09/04	09/28	MTT
Hexachloro		2.20	U	mg/Kg		8270		09/04	09/28	MTT
Nitrobenze		2.20	U	mg/Kg		8270		09/04	09/28	MTT
Isophorone		3.61		mg/Kg	EPA	8270		09/04	09/28	MTT
2-Nitrophe		2.20	U	mg/Kg	EPA	8270		09/04	09/28	MTT
2,4-Dimeth	ylphenol	2.20	U	mg/Kg		8270		09/04	09/28	MTT
Benzoic Ac		2.20	U	mg/Kg	EPA	8270		09/04	09/28	HTT
bis(2-Chlo	roethoxy)Meth	2.20	U	mg/Kg	EPA	8270		09/04	09/28	MTT
2,4-Dichlo	rophenol	2.20	U	mg/Kg	EPA	8270		09/04	09/28	MTT
1,2,4-Tric	hlorobenzene	2.56		mg/Kg	EPA	8270		09/04	09/28	MTT
Naphthalen	e	11.6		mg/Kg	EPA	8270		09/04	09/28	HTT
4-Chloroan	iline	2.20	U	mg/Kg	EPA	8270		09/04	09/28	MTT
Hexachloro	butadiene	2.20	U	mg/Kg	EPA	8270		09/04	09/28	HTT
4-Chloro-3	-Methylphenol	2.50		mg/Kg	EPA	8270		09/04	09/28	MTT
2-Methylna		21.4		mg/Kg		8270		09/04	09/28	MTT
	cyclopentadie	2.2	U	mg/Kg		8270			09/28	MTT
	hlorophenol	2.2	U	mg/Kg		8270		09/04	09/28	MTT
	hlorophenol	2.2	U	mg/Kg	EPA	8270			09/28	MTT
2-Chlorona		2.2	U	mg/Kg		8270			09/28	MIT
2-Nitroani		2.2	U	ng/Kg		8270			09/28	MTT
Dimethylph		2.2	U	mg/Kg		8270		09/04		MTT
Acenaphthy		2.2	U	mg/Kg		8270		09/04		MTT
2,6-Dinitr		2.2	U	mg/Kg		8270			09/28	MTT
3-Nitroani		2.2	U	mg/Kg		8270		09/04		MIT
Acenaphthe	ne	4.81		mg/Kg	EPA	8270		09/04	09/28	

ENVIRONMENTAL LABORATORY SERVICES

(£ 190e		סבים	ORT of A	JAL VOTO			
Chemlab Ref.# :93.4301-5		KLP	URI OF A	NALISIS		5633 B ST	
Client Sample ID :BTR-SS14-SD0	1 SPIR	F				ANCHORAGE, AK	
Matrix :SOIL	1 01 11					TEL: (907) 562 FAX: (907) 561	
						,	
2.4-Dinitrophenol	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Nitrophenol	3.03	_	mg/Kg	EPA 8270		09/04 09/28	HTT
Dibenzofuran	2.20	U	mg/Kg	EPA 8270		09/04 09/28	HTT
2.4-Dinitrotoluene	3.35	•	mg/Kg	EPA 8270		09/04 09/28	MTT
Diethylphthalate	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Chlorophenyl-Phenylet	2.20	Ū	mg/Kg	EPA 8270		09/04 09/28	MTT
Fluorene	5.79	_	mg/Kg	EPA 8270		09/04 09/28	MIT
4-Nitroaniline	2.20	U	ng/Kg	EPA 8270		09/04 09/28	MTT
4,6-Dinitro-2-Methylphe	2.20	Ŭ	mg/Kg	EPA 8270		09/04 09/28	MTT
n-Nitrosodiphenylamine	2.20	Ŭ	mg/Kg	EPA 8270		09/04 09/28	MTT
4-Bromophenyl-Phenyleth	2.20	Ü	mg/Kg	EPA 8270		09/04 09/28	MTT
Hexachlorobenzene	2.20	ŭ	mg/Kg	EPA 8270		09/04 09/28	MTT
Pentachlorophenol	1.79	•	mg/Kg	EPA 8270		09/04 09/28	MTT
Phenanthrene	22.2		mg/Kg	EPA 8270		09/04 09/28	MTT
Anthracene	8.38		mg/Kg	EPA 8270		09/04 09/28	MTT
di-n-Butylphthalate	3.21		mg/Kg	EPA 8270		09/04 09/28	MTT
Fluoranthene	11.8		mg/Kg	EPA 8270		09/04 09/28	MTT
Pyrene	10.1		nog/Kg	EPA 8270		09/04 09/28	MTT
Butylbenzylphthalate	3.21		mg/Kg	EPA 8270		09/04 09/28	MTT
3,3-Dichlorobenzidine	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(a)Anthracene	2.20	Ū	mg/Kg	EPA 8270		09/04 09/28	HTT
Chrysene	3.60		mg/Kg	EPA 8270		09/04 09/28	MTT
is(2-Ethylhexyl)Phthal	6.96	В	mg/Kg	EPA 8270		09/04 09/28	MTT
i-n-Octylphthalate	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(b)Fluoranthene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(k)Fluoranthene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(a)Pyrene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
<pre>Indeno(1,2,3-cd)Pyrene</pre>	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Dibenz(a,h)Anthracene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	HTT
Benzo(g,h,i)Perylene	2.20	U	mg/Kg	EPA 8270		09/04 09/28	MIT
Sample Preparation				EPA 3050 Digest			
Total Metals Analysis							
ICP Screen, ICF	2400			EPA	n/a		
Aluminum	2400		nog/Kg	EPA 6010		08/27 08/29	DFL
Antimony	78		mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	110		mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	130		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium Cadmium	39		mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	51		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	4200		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	130		mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	97		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	120 6800		mg/Kg	EPA 6010		08/27 08/29	DFL
Lead	300		ng/Kg	EPA 6010		08/27 08/29	DFL
Magnesium	2800		mg/Kg	EPA 6010		08/27 08/29	DFL
Manganese	1501		mg/Kg mg/Kg	EPA 6010 EPA 6010		08/27 08/29	DFL
Molybdenum	99		mg/Kg	EPA 6010		08/27 08/29	DFL
Nickel	100		mg/Kg	EPA 6010		08/27 08/29	DFL
Potassium	1300		mg/Kg	EPA 6010		08/27 08/29	DFL
	1300		ma\ va	EN 0010		08/27 08/29	DFL



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4301-5 ANCHORAGE, AK 99518 Client Sample ID :BTR-SS14-SD01 SPIKE TEL: (907) 562-2343 :SOIL Matrix FAX: (907) 561-5301 Selenium 99 mg/Kg **EPA** 6010 08/27 08/29 DFL Silver 17 mg/Kg EPA 6010 08/27 08/29 DFL Sodium 1200 ma/Ka EPA 6010 08/27 08/29 DFL Thallium 2.3 mg/Kg EPA 7841 08/26 08/28 KAW EPA 6010 Vanadium 100 mg/Kg 08/27 08/29 DFL Zinc 280 EPA 6010 mg/Kg 08/27 08/29 DFL

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-17

Client Sample ID :BTR-SS14-SD01 SPIKE DUPLICATE

Matrix

:SOIL

5633 B STREE ANCHORAGE, AK 99511

TEL: (907) 562-2340 FAX: (907) 561-530

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS :DEW LINE

PWSID

:BARTER :UA

WORK Order

:70003

Report Completed Collected

:10/04/93 :08/21/93

@ 13:45 @ 12:00

Received :08/24/93 Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. J ∕= INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S

CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE. IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED BLANK AS WELL B = THIS FLAG

AS IN THE SAMPLE.

Parameter	QC Results Qua	l Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics Phenol bis(2-Chloroethyl)ether 2-Chlorophenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene Benzyl Alcohol 1,2-Dichlorobenzene 2-Methylphenol bis(2-Chloroisopropyl)e 4-Methylphenol n-Nitroso-di-n-Propylam Hexachloroethane Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Benzoic Acid bis(2-Chloroethoxy)Meth 2,4-Dichlorophenol 1,2,4-Trichlorobenzene Naphthalene 4-Chloro-3-Methylphenol 2-Methylnaphthalene Hexachlorocyclopentadie 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene	2.38 2.20 U 2.43 2.20 U 2.36 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U 2.20 U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270		09/04 09/04 09/04 09/04 09/04 09/04	09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28	MT HT HT HT HT HT HT HT HT HT HT HT HT HT



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

REPORT of ANALYSIS

:93.4301-17 Client Sample ID :BTR-SS14-SD01 SPIKE DUPLICATE

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix	:SOIL						F	AX: (907) 56	31-5301
3-Nitroanilir Acenaphthene 2,4-Dinitroph 4-Nitrophenol Dibenzofuran 2,4-Dinitroto Diethylphthal 4-Chloropheny Fluorene 4-Nitroanilin 4,6-Dinitro-2 n-Nitrosodiph 4-Bromophenyl	e enol luene ate l-Phenylet e -Methylphe enylamine -Phenyleth	2.2 3.49 2.20 2.79 2.20 2.97 2.20 2.20 2.20 2.20 2.20	U U U U U U U U U U U U U U U U U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA A A A A A A A A A A A A A A A A A A	8270 8270 8270 8270 8270 8270 8270 8270	09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04	09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28 09/28	MT MT MT MT MT MT MT MT MT
n-Nitrosodiph 4-Bromophenyl	enylamine -Phenyleth	2.20 2.20	Ū U	mg/Kg	EPA	8270	09/04	09/28	MT
Hexachloroben Pentachloroph Phenanthrene Anthracene		2.20 1.39 4.76	U	mg/Kg mg/Kg mg/Kg	EPA EPA	8270 8270 8270	09/04 09/04	09/28 09/28 09/28	MT MT
di-n-Butylpht Fluoranthene Pyrene	halate	2.20 3.05 2.24 3.59	Ŭ	mg/Kg mg/Kg mg/Kg mg/Kg	EPA EPA	8270 8270 8270 8270			MTT MTT MTT MTT
Butylbenzylph 3,3-Dichlorob Benzo(a)Anthr Chrysene	enzidine	2.2 2.2 2.2 2.2	U U U	mg/Kg mg/Kg mg/Kg	EPA EPA EPA	8270 8270 8270	09/04 09/04 09/04	09/28 09/28 09/28	MTI
bis(2-Ethylhe di-n-Octylpht Benzo(b)Fluor	halate anthene	4.27 2.2 2.2	B U U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA EPA	8270 8270 8270 8270	09/04 09/04 09/04 09/04	09/28 09/28	TTM TTM TTM TTM
Benzo(k)Fluor Benzo(a)Pyren Indeno(1,2,3- Dibenz(a,h)An Benzo(g,h,i)P	e cd)Pyrene thracene	2.2 2.2 2.2 2.2 2.2	U U U U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA EPA EPA	8270 8270 8270 8270	09/04 09/04 09/04 09/04	09/28 09/28 09/28 09/28	TTM TTM TTM TTM
De1120 (9,11,1)F	er Arelie	4.4	U	mg/Kg	EPA	8270	09/04	09/28	MTT

D = Secondary dilution.

UA = Unavailable

NA = Not Analyze

LT = Less Than GT = Greater Than



See Special Instructions Above

^{**} See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4301-1

Matrix

Client Sample ID :BTR-SS14-SW01

Client Name

:WATER

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

Report Completed :10/04/93

:70003

Collected Received

:08/21/93 @ 13:55 hr :08/24/93 @ 12:00 hr

5633 B STREET

TEL: (907) 562-2343 FAX: (907) 561-5301

ANCHORAGE, AK 99518

Technical Director: STEPHEN ,C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. THE 8260

HOLDING TIME WAS EXCEEDED ON THIS SAMPLE.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
	Semivolatile Organics				EPA 8270				
	Phenol	0.025	U	mg/Ľ	EPA 8270			08/29	
	bis(2-Chloroethyl)ether	0.025	U	mg/L	EPA 8270			08/29	M.J.
	2-Chlorophenol	0.025	U	mg/L	EPA 8270			08/29	ΓM
	1,3-Dichlorobenzene	0.025	Ü	mg/L	EPA 8270			08/29	ĽΜ
	1,4-Dichlorobenzene	0.025	U	mg/L	EPA 8270			08/29	ĽΜ
	Benzyl Alcohol	0.025	Ü	mg/L	EPA 8270			08/29	LW
	1,2-Dichlorobenzene	0.025	U	mg/L	EPA 8270			08/29	MI
	2-Methylphenol	0.025	U	mg/L	EPA 8270			08/29	rm
	bis(2-Chloroisopropyl)e	0.025	U	mg/L	EPA 8270(J)	-6.1		08/29	ΓM
	4-Methylphenol	0.025	U	mg/L	EPA 8270			08/29	ΓM
•	n-Nitroso-di-n-Propylam	0.025	U	mg/L	EPA 8270			08/29	ΤM
	Hexachloroethane	0.025	U	mg/L	EPA 8270			08/29	ĽΜ
	Nitrobenzene	0.025	บ	mg/L	EPA 8270			08/29	ľΜ
	Isophorone	0.025	U	mg/L	EPA 8270			08/29	ĽΜ
	2-Nitrophenol	0.025	U	mg/L	EPA 8270			08/29	ĽΜ
	2,4-Dimethylphenol	0.025	U	mg/L	EPA 8270			08/29	ΓM
	Benzoic Acid	0.025	U	mg/L	EPA 8270			08/29	MΠ
	bis(2-Chloroethoxy)Meth	0.025	U	mg/L	EPA 8270			08/29	ĽΜ
	2,4-Dichlorophenol	0.025	U	mg/L	EPA 8270			08/29	MΠ
	1,2,4-Trichlorobenzene	0.025	U	mg/L	EPA 8270			08/29	MT
	Naphthalene	0.025	U	mg/L	EPA 8270			08/29	MO
	4-Chloroaniline	0.025	U	mg/L	EPA 8270			08/29	MI
	Hexachlorobutadiene	0.025	U	mg/L	EPA 8270			08/29	MI
	4-Chloro-3-Methylphenol	0.025	U	mg/L	EPA 8270			08/29	MG
	2-Methylnaphthalene	0.025	U	mg/L	EPA 8270			08/29	MI
	Hexachlorocyclopentadie	0.025	U	mg/L	EPA 8270		08/27	08/29	rm
	2,4,6-Trichlorophenol	0.025	U	mg/L	EPA 8270		08/27	08/29	EM.
	2,4,5-Trichlorophenol	0.025	U	mg/L	EPA 8270			08/29	MI
	2-Chloronaphthalene	0.025	U	mg/L	EPA 8270			08/29	MΠ
	2-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27	08/29	M7
	Dimethylphthalate	0.025	U	mg/L	EPA 8270		08/27	08/29	ĽΜ
	<b>Ace</b> naphthylene	0.025	U	mg/L	EPA 8270			08/29	Mi
	2,6-Dinitrotoluene	0.025	บ	mg/L	EPA 8270			08/29	MI
	3-Nitroaniline	0.025	U	mg/L	EPA 8270			08/29	rm.
	<b>Ace</b> naphthene	0.025	บ	mg/L	EPA 8270			08/29	rm.
	2,4-Dinitrophenol	0.025	U	mg/L	EPA 8270		08/27	08/29	rm
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**SGS** Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES REPORT of ANALYSIS 5633 B STR ANCHORAGE, AK 995-1 Lia Ly : (27 / La - 7 / FAX: (907) 562-2343 FAX: (907) 561-5301 :93.4301-1 Chemlab Ref.# Client Sample ID :BTR-SS14-SW01 :WATER Matrix 08/27 08/29 MT EPA 8270 0.025 U mg/L 4-Nitrophenol 08/27 08/29 MT EPA 8270 0.025 U mg/LDibenzofuran 08/27 08/29 MT EPA 8270 0.025 U mg/L 2,4-Dinitrotoluene 08/27 08/29 MT **EPA 8270** 0.025 U mg/L Diethylphthalate 08/27 08/29 MT EPA 8270 0.025 U mq/L 4-Chlorophenyl-Phenylet MT 08/27 08/29 EPA 8270 0.025 U mq/L Fluorene 08/27 08/29 MT **EPA 8270** U mg/L 0.025 4-Nitroaniline 08/27 08/29 MT EPA 8270 U mg/L 0.025 4,6-Dinitro-2-Methylphe 08/27 08/29 MT **EPA** 8270 U mg/L 0.025 n-Nitrosodiphenylamine MT EPA 8270 08/27 08/29 0.025 U mq/L 4-Bromophenyl-Phenyleth 08/27 08/29 MT. **EPA** 8270 U mg/L 0.025 Hexachlorobenzene 08/27 08/29 MT. EPA 8270 0.025 mq/L Pentachlorophenol 08/27 08/29 MT. EPA 8270 0.025 U mq/L Phenanthrene 08/27 08/29 MT. **EPA 8270** 0.025 U mg/L Anthracene 08/27 08/29 MT. **EPA 8270** 0.025 U mg/L di-n-Butylphthalate 08/27 08/29 MT. EPA 8270 0.025 U mq/L Fluoranthene MT? 08/27 08/29 EPA 8270 0.025 U ma/L Pyrene MT 08/27 08/29 EPA 8270 0.025 U mq/L Butylbenzylphthalate 08/27 08/29 MTI EPA 8270(T)-P.1 0.025 U mg/L 3,3-Dichlorobenzidine 08/27 08/29 MT **EPA** 8270 0.025 U mg/L Benzo(a)Anthracene 08/27 08/29 MTI **EPA 8270** U 0.025 mg/L Chrysene 08/27 08/29 MTI **EPA** 8270 bis(2-Ethylhexyl)Phthal 0.025 U mg/L MTT 08/27 08/29 EPA 8270 0.025 U mg/L di-n-Octylphthalate 08/27 08/29 EPA 8270 0.025 U mg/L Benzo(b)Fluoranthene 08/27 08/29 TEPA 8270 0.025 U mq/L Benzo(k)Fluoranthene 08/27 08/29 MTI EPA 8270 0.025 U ma/L Benzo(a)Pyrene 08/27 08/29 MTI **EPA** 8270 0.025 U ma/L Indeno(1,2,3-cd)Pyrene 08/27 08/29 MTI EPA 8270 mg/L U 0.025 Dibenz(a,h)Anthracene 08/27 08/29 MTI EPA 8270 mg/L 0.025 U Benzo(g,h,i)Perylene Total Metals Analysis n/a EPA ICP Screen, ICF 08/28 08/30 DLG 0.1 EPA 6010 mq/L IJ Aluminum 08/28 08/30 DLC **EPA** 6010 0.1 mq/L Antimony 08/28 08/30 DLG **EPA** 6010 0.1 mq/LArsenic 08/28 08/30 DLC EPA 6010 0.074 mg/L Barium DLG EPA 6010 08/28 08/30 0.05 mq/L Beryllium DLG 08/28 08/30 **EPA** 6010 0.05 mg/L Cadmium 08/28 08/30 DLC **EPA** 6010 105 mg/L Calcium DLG 08/28 08/30 **EPA** 6010 0.05 U mg/L Chromium 08/28 08/30 DLC **EPA** 6010 0.1 U mg/L Cobalt 08/28 08/30 DLC 0.05 EPA 6010 U mg/L compilodry: 08/28 08/30 Copper DLG **EPA** 6010 6.0 mg/L Iron 08/28 08/30 DLG EPA 6010 (J) I.1 BFM 11.8.94 U 0.1 mg/L Lead 08/28 08/30 DLG EPA 6010 34 mg/L Magnesium DLG 08/28 08/30 **EPA** 6010 0.49 mg/L Manganese 08/28 08/30 DLC EPA 6010 0.05 U mg/L Molybdenum 08/28 08/30 DLC 0.05 **EPA** 6010 mg/L Nickel 08/28 08/30 DLC **EPA** 6010 9.1 mg/L Potassium DLC 08/28 08/30 **EPA** 6010 0.1 mg/L Selenium DLC 08/28 08/30 **EPA** 6010 0.05 mg/L Silver

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ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908	REPORT of ANALYSIS	5633 B STREET ANCHORAGE, AK 99518
Chemlab Ref.# :93.4301-1 Client Sample ID :BTR-SS14-SW01 Matrix :WATER	130 mg/L EPA 6010	TEL: (907) 562-2343 FAX: (907) 561-5301
Sodium Thallium Vanadium Zinc	130 mg/L EPA 6010 0.005 U mg/L EPA 6010 0.05 U mg/L EPA 6010 0.05 U mg/L EPA 6010	08/28 08/30 DL/ 08/28 08/30 KAI 08/28 08/30 DL/ 08/28 08/30 DL/
Dissolved Metals Analys ICP Screen, ICF Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc	Department of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the color of the	08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/ 08/28 08/30 DL/

All chaps se 2/2/94

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

NA = Not Analyzed

LT = Less Than

GT = Greater Than





Client Name

#### COMMERCIAL TESTING & ENGINEERING CO.

**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS Chemlab Ref.# :93.4301-3

Client Sample ID :BTR-SS14-SW01 DUPLICATE

:WATER Matrix

> :70003 :ICF KAISER ENGINEERING WORK Order

:RAY MORRIS Report Completed :10/04/93 Ordered By :DEW LINE Collected :08/21/93 @ 13:55 hrs. Project Name :08/24/93 @ 12:00 hrs. :BARTER Received Project#

Technical Director: STEPHEN.C. EDE PWSID :UA

Released By :

5633 B STREET

TEL: (907) 562-2343 FAX: (907) 561-5301

ANCHORAGE, AK 99518

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
 Total Metals Analysis								
ICP Screen, ICF				EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010			08/30	DLG
Antimony	0.1		mg/L	EPA 6010			08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010			08/30	DLG
Barium	0.075		mg/L	EPA 6010			08/30	DLG
Beryllium	0.05		mg/L	EPA 6010			08/30	DLG
Cadmium	0.05		mg/L	EPA 6010			08/30	DLG
Calcium	107		mg/L	EPA 6010			08/30	DLG
Chromium	0.05		mg/L	EPA 6010			08/30	DI
Cobalt	0.1		mg/L	EPA 6010			08/30	DI
Copper	0.05	Ū	mg/L	EPA 6010			08/30	DLG
Iron	6.1		mg/L	EPA 6010			08/30	DLG
Lead	0.1	U	mg/L	EPA 6010			08/30	DLG
Magnesium	33		mg/L	EPA 6010			08/30	DLG
Manganese	0.50		mg/L	EPA 6010			08/30	DLG
Molybdenum	0.05		mg/L	EPA 6010			08/30	
Nickel	0.05		mg/L	EPA 6010			08/30	DLG
Potassium	8.5		mg/L	EPA 6010			08/30	DLG
Selenium	0.1		mg/L	EPA 6010			08/30	DLG
Silver	0.05		mg/L	EPA 6010			08/30	DLG
Sodium	130		mg/L	EPA 6010			08/30	DLG
Thallium	0.005		mg/L	EPA 7841			08/30	KAW
Vanadium	0.05		mg/L	EPA 6010		•	08/30	DLG
Zinc	0.05	Ü	mg/L	EPA 6010		08/28	08/30	DLG
Dissolved Metals Analys				_				
ICP Screen, ICF				EPA	n/a			
Aluminum	0.1	U	mg/L	EPA 6010			08/30	DLG
Antimony	0.1	U	mg/L	EPA 6010			08/30	DLG
Arsenic	0.1	U	mg/L	EPA 6010			08/30	DLG
Barium	0.063		mg/L	EPA 6010			08/30	DLG
Beryllium	0.05		mg/L	EPA 6010			08/30	DLG
Cadmium	0.05		mg/L	EPA 6010			08/30	DLG
Calcium	110		mg/L	EPA 6010			08/30	DLG
Chromium	0.05	U	mg/L	EPA 6010			08/30	DLG
Cobalt	0.1	U	mg/L	EPA 6010			08/30	DLG
Copper	0.05	U	mg/L	EPA 6010		08/28	08/30	DI

**ENVIRONMENTAL LABORATORY SERVICES** 

			REPOR	T OF ANA	ALYSIS			5633 B ST	DEET
Chemlab Ref.#	:93.4301-3						ANCH	ORAGE, AK	
Client Sample II		DUPL	ICATE	•				EL: (907) 562	
Matrix	:WATER						Ε,	AX: (907) 561	-5301
Iron		0.56		mg/L	EPA	6010	08/28	08/30	DLG
Lead		0.1	U	mg/L	EPA	6010	08/28	08/30	DLG
Magnesium		33		mg/L	EPA	6010	08/28	08/30	DLG
Manganese		0.47		mg/L	EPA	6010	08/28	08/30	DLG
Molybdenum		0.05	U	mg/L	EPA	6010	08/28	08/30	DLG
Nickel		0.05	U	mg/L	EPA	6010	08/28	08/30	DLG
Potassium		8.1		mg/L	EPA	6010	08/28	08/30	DLG
Selenium		0.1	U	mg/L	EPA	6010	08/28	08/30	DLG
Silver		0.05	U	mg/L	EPA	6010	08/28	08/30	DLG
Sodium		130		mg/L		6010	08/28	08/30	DLG
Thallium		0.005	U	mg/L	EPA	7841	08/28	08/30	KAW
Vanadium		0.05	U	mg/L	EPA	6010	08/28	08/30	DLG
Zinc		0.05	U	mq/L	EPA	6010	08/28	08/30	DLG

See Special Instructions Above see Sample Remarks Above

Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



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**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.#

:93.4301-2

Client Sample ID :BTR-SS14-SW01 SPIKE

Matrix

:WATER

:ICF KAISER ENGINEERING

Client Name Ordered By Project Name Project#

:RAY MORRIS :DEW LINE

PWSID

:BARTER :UA

WORK Order

:70003

Collected

Report Completed :10/04/93 :08/21/93

Received

@ 13:55 hr :08/24/93 @ 12:00 hr

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX (907) 561-5301

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. 8270: SAMPLE

WAS SPIKED FOR PERCENT RECOVERIES SEE QA/QC PACKAGE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini [.]
Semivolatile Organics				EPA 8270				
Phenol	0.205		mg/L	EPA 8270		08/27	08/29	MT
bis(2-Chloroethyl)ether	0.040	U	mg/L	EPA 8270	•		08/29	MT
2-Chlorophenol	0.234		mg/L	EPA 8270			08/29	MT
1,3-Dichlorobenzene	0.0400	U	mg/L	EPA 8270			08/29	MT.
1,4-Dichlorobenzene	0.225		mg/L	EPA 8270			08/29	MT.
Benzyl Alcohol	0.040	U	mg/L	EPA 8270			08/29	MT.
1,2-Dichlorobenzene	0.040	U	mg/L	EPA 8270			08/29	
2-Methylphenol	0.040	U	mg/L	EPA 8270			08/29	
bis(2-Chloroisopropyl)e	0.040	U	mg/L	EPA 8270			08/29	HT:
4-Methylphenol	0.040	U	mg/L	EPA 8270			08/29	MIT
n-Nitroso-di-n-Propylam	0.256		mg/L	EPA 8270			08/29	MTT
Hexachloroethane	0.040	U	mg/L	EPA 8270			08/29	MTI
Nitrobenzene	0.040	U	mg/L	EPA 8270			08/29	MTI
Isophorone	0.040	U	mg/L	EPA 8270		08/27		MTI
2-Nitrophenol	0.040	U	mg/L	EPA 8270		08/27		MTI
2,4-Dimethylphenol	0.040	Ü	mg/L	EPA 8270		08/27		MTI
Benzoic Acid	0.040	U	mg/L	EPA 8270		08/27		MTT
bis(2-Chloroethoxy)Meth	0.040	Ü	mg/L	EPA 8270		08/27		MTT
2,4-Dichlorophenol	0.040	U	mg/L	EPA 8270		08/27		MTT
1,2,4-Trichlorobenzene Naphthalene	0.237		mg/L	EPA 8270		08/27		MTT
4-Chloroaniline	0.040	ប	mg/L	EPA 8270		08/27		MTI
Hexachlorobutadiene	0.040	ប	mg/L	EPA 8270		08/27	08/29	MTT
4-Chloro-3-Methylphenol	0.040	U	mg/L	EPA 8270		08/27	08/29	MTI
2-Methylnaphthalene	0.261		mg/L	EPA 8270		08/27	08/29	MTI
Hexachlorocyclopentadie	0.040	Ü	mg/L	EPA 8270		08/27	08/29	MTT
2,4,6-Trichlorophenol	0.040	Ü	mg/L	EPA 8270		08/27	08/29	MTT
2,4,5-Trichlorophenol	0.040	Ü	mg/L	EPA 8270		08/27	08/29	MTT
2-Chloronaphthalene	0.040	Ü	mg/L	EPA 8270		08/27	08/29	MTT
2-Nitroaniline	0.040	Ü	mg/L	EPA 8270		08/27	08/29	MTT
Dimethylphthalate	0.040	Ü	mg/L	EPA 8270		08/27	08/29	MTT
Acenaphthylene	0.040	U	mg/L	EPA 8270		08/27		MTT
2,6-Dinitrotoluene	0.040 0.040	U	mg/L	EPA 8270		08/27		MTT
3-Nitroaniline	0.040	U U	mg/L	EPA 8270		08/27		MTT
Acenaphthene	0.040	U	mg/L	EPA 8270		08/27	•	MTT
2,4-Dinitrophenol	0.266	U	mg/L	EPA 8270		08/27		T
· · · · · · · · · · · · · · · · · · ·	0.040	U	mg/L	EPA 8270	1	08/27	08/29	



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4301-2 5633 B STREET Client Sample ID :BTR-SS14-SW01 ANCHORAGE, AK 99518 SPIKE Matrix TEL: (907) 562-2343 :WATER FAX: (907) 561-5301 4-Nitrophenol 0.169 mg/L EPA 8270 08/27 08/29 MT Dibenzofuran 0.0400 U mq/L EPA 8270 08/27 08/29 MT 2,4-Dinitrotoluene 0.253 mg/L EPA 8270 08/27 08/29 MT Diethylphthalate 0.0400 U mg/L **EPA** 8270 08/27 08/29 MT 4-Chlorophenyl-Phenylet 0.0400 U mg/L **EPA** 8270 08/27 08/29 MT Fluorene 0.0400 U mg/L EPA 8270 08/27 08/29 MT 4-Nitroaniline 0.0400 IJ mg/L **EPA** 8270 08/27 08/29 4,6-Dinitro-2-Methylphe MT 0.0400 11 mg/L EPA 8270 08/27 08/29 n-Nitrosodiphenylamine MT 0.0400 U mq/L EPA 8270 08/27 08/29 MT 4-Bromophenyl-Phenyleth 0.0400 U mg/L EPA 8270 08/27 08/29 Hexachlorobenzene MT 0.0400 IJ mg/L EPA 8270 08/27 08/29 MT Pentachlorophenol 0.078 mg/L EPA 8270 08/27 08/29 MT Phenanthrene 0.0400 U mg/L EPA 8270 08/27 08/29 Anthracene MT. 0.0400 H mg/L EPA 8270 08/27 08/29 di-n-Butylphthalate MT. 0.303 mg/L EPA 8270 08/27 08/29 Fluoranthene MT. 0.040 IJ mq/L EPA 8270 08/27 08/29 . MT Pyrene 0.255 EPA 8270 mq/L 08/27 08/29 Butylbenzylphthalate MT. 0.040 U EPA 8270 mq/L 08/27 08/29 MT. 3,3-Dichlorobenzidine 0.040 U mg/L **EPA** 8270 08/27 08/29 MT Benzo(a)Anthracene 0.040 U mg/L EPA 8270 08/27 08/29 MT Chrysene 0.040 U mg/L EPA 8270 08/27 08/29 MT. bis(2-Ethylhexyl)Phthal 0.040 U mq/L EPA 8270 08/27 08/29 MT di-n-Octylphthalate 0.040 U mg/L EPA 8270 08/27 08/29 Benzo(b)Fluoranthene MTI 0.040 U mg/L EPA 8270 08/27 08/29 Benzo(k)Fluoranthene MTI 0.040 U mg/L EPA 8270 08/27 08/29 Benzo(a)Pyrene MT 0.040 U mq/L EPA 8270 08/27 08/29 Indeno(1,2,3-cd)Pyrene MTI 0.040 U mq/L EPA 8270 08/27 08/29 MT Dibenz(a,h)Anthracene 0.040 U mg/L **EPA** 8270 08/27 08/29 MTI Benzo(g,h,i)Perylene 0.040 U mg/L EPA 8270 08/27 08/29 MTI Total Metals Analysis ICP Screen, ICF **EPA** n/a Aluminum 1.09 mg/L EPA 6010 08/28 08/30 DLG Antimony 0.90 mq/L **EPA** 6010 08/28 08/30 DLC Arsenic 1.03 mg/L EPA 6010 08/28 08/30 Barium DLC 1.10 mg/L EPA 6010 08/28 08/30 DLG Beryllium 0.39 mg/L **EPA** 6010 08/28 08/30 Cadmium DLG 0.46 mg/L **EPA** 6010 08/28 08/30 DLG Calcium 112 mg/L EPA 6010 08/28 08/30 DLG Chromium 0.99 mg/L **EPA** 6010 08/28 08/30 DLG Cobalt 0.95 mg/L **EPA** 6010 08/28 08/30 DLG Copper 1.02 mg/L **EPA** 6010 08/28 08/30 DLG Iron 6.77 mg/L **EPA** 6010 08/28 08/30 DLG Lead 0.93 mq/L **EPA** 6010 08/28 08/30 Magnesium DLG 41.6 mg/L **EPA** 6010 08/28 08/30 Manganese DLG 1.45 mg/L **EPA** 6010 08/28 08/30 DLG Molybdenum 9.42 mg/L EPA 6010 08/28 08/30 Nickel DLG 0.97 mg/L EPA 6010 08/28 08/30 DLG Potassium 19.9 mg/L **EPA** 6010 08/28 08/30 DLG Selenium 0.97 mg/L EPA 6010 08/28 08/30 DLG Silver 0.16 mg/L **EPA** 6010



08/28 08/30

DLG



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4301-2 5633 B STREET Client Sample ID :BTR-SS14-SW01 SPIKE ANCHORAGE, AK 99518 TEL: (907) 562-2343 Matrix :WATER FAX: (907) 561-5301 Sodium 230 mg/L EPA 6010 08/28 08/30 DI Thallium 0.018 mg/L EPA 7841 08/28 08/30 K/ Vanadium 0.70 mq/L EPA 6010 08/28 08/30 DI Zinc 0.96 mg/L EPA 6010 08/28 08/30 DI Dissolved Metals Analys ICP Screen, ICF EPA n/a Aluminum 1.03 mq/L EPA 6010 08/28 08/30 Antimony DL 0.83 mg/L EPA 6010 08/28 08/30 DL Arsenic 0.95 mg/L-EPA 6010 08/28 08/30 DL Barium 1.06 mg/L EPA 6010 08/28 08/30 DL Beryllium 0.37 mg/L EPA 6010 08/28 08/30 DL Cadmium 0.46 mg/L EPA 6010 08/28 08/30 DL Calcium 116 mg/L EPA 6010 08/28 08/30 DL Chromium 0.93 mg/L EPA 6010 08/28 08/30 DL Cobalt 0.91 mg/L EPA 6010 08/28 08/30 . DL Copper 0.98 mg/L EPA 6010 08/28 08/30 DL Iron 1.47 mg/LEPA 6010 08/28 08/30 DL. Lead 0.90 mg/L EPA 6010 08/28 08/30 DL Magnesium 43.0 mg/L EPA 6010 08/28 08/30 DL Manganese 1.40 mg/LEPA 6010 08/28 08/30 DL Molybdenum 0.93 mg/L EPA 6010 08/28 08/30 Nickel 0.93 mg/L EPA 6010 08/28 08/30 Potassium 19.5 mg/L EPA 6010 08/28 08/30 DL: Selenium 0.90 mg/L EPA 6010 08/28 08/30 Silver DL 0.16 EPA 6010 mg/L 08/28 08/30 Sodium DL 220 mg/L EPA 6010 08/28 08/30 Thallium DL 0.017 mg/L EPA 7841 08/28 08/30 Vanadium KAI 0.90 mg/L EPA 6010 08/28 08/30 DL Zinc 0.92 mg/L EPA 6010 08/28 08/30 DL

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4301-16

Client Sample ID :BTR-SS14-SW01 SPIKE DUPLICATE

Matrix

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By

:RAY MORRIS

Project Name

:DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

:70003 Report Completed

Collected

:10/04/93 :08/21/93

@ 13:55 hrs. :08/24/93 @ 12:00 hrs.

Received

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. SAMPLE IS A

SPIKE DUPLICATE FOR 8270. SAMPLE WAS SPIKED FOR PERCENT RÉCOVERIES

SEE QA/QC PACKAGE.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Semivolatile Organics				EPA 8270				
	Phenol	0.196		mg/L	EPA 8270		08/27	08/29	MTT
	bis(2-Chloroethyl)ether	0.036	U	mg/L	EPA 8270		08/27		MTT
	2-Chlorophenol	0.220		mg/L	EPA 8270			08/29	MTT
	1,3-Dichlorobenzene	0.036	บ	mg/L	EPA 8270		08/27		MTT
	1,4-Dichlorobenzene	0.246		mg/L	EPA 8270			08/29	MTT
	Benzyl Alcohol	0.036	U	mg/L	EPA 8270			08/29	MTT
4	-1,2-Dichlorobenzene	0.036	U	mg/L	EPA 8270			08/29	MTT
	-Methylphenol	0.036	U	mg/L	EPA 8270			08/29	HTT
	bis(2-Chloroisopropyl)e	0.036	U	mg/L	EPA 8270			08/29	MTT
	4-Methylphenol	0.036	U	mg/L	EPA 8270		08/27		MIT
	n-Nitroso-di-n-Propylam	0.282		mg/L	EPA 8270		08/27		MTT
	Hexachloroethane	0.036	U	mg/L	EPA 8270		08/27		MTT
	Nitrobenzene	0.036	บ	mg/L	EPA 8270		08/27		MTT
	Isophorone	0.036	U	mg/L	EPA 8270			08/29	
	2-Nitrophenol	0.036	U	mg/L	EPA 8270		08/27		MTT
	2,4-Dimethylphenol	0.036	U	mg/L	EPA 8270		08/27		MTT
	Benzoic Acid	0.036	Ū.	mg/L	EPA 8270		08/27		MTT
	bis(2-Chloroethoxy)Meth	0.036	Ü	mg/L	EPA 8270		08/27		MTT
	2,4-Dichlorophenol	0.036	บ	mg/L	EPA 8270		08/27		MTT
	1,2,4-Trichlorobenzene	0.260		mg/L	EPA 8270		08/27		MIT
	Naphthalene	0.036	U	mg/L	EPA 8270		08/27		HTT
	4-Chloroaniline	0.036	U	mg/L	EPA 8270		08/27		HTT
	Hexachlorobutadiene	0.036	บ	mg/L	EPA 8270		08/27		MTT
	4-Chloro-3-Methylphenol	0.267		mg/L	EPA 8270		08/27		MIT
	2-Methylnaphthalene	0.036	Ŭ	mg/L	EPA 8270		08/27		MTT
	Hexachlorocyclopentadie	0.036	U	mg/L	EPA 8270		08/27		MTT
	2,4,6-Trichlorophenol	0.036	U	mg/L	EPA 8270		08/27		MTT
	2,4,5-Trichlorophenol	0.036	U	mg/L	EPA 8270		08/27		MTT
	2-Chloronaphthalene	0.036		mg/L	EPA 8270		08/27	08/29	MTT
	2-Nitroaniline	0.036	U	mg/L	EPA 8270		08/27	08/29	HTT
	Dimethylphthalate	0.036	U	mg/L	EPA 8270		08/27	08/29	MIT
	Acenaphthylene	0.036	Ü	mg/L	EPA 8270		08/27	08/29	MTT
	2,6-Dinitrotoluene	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
	3-Nitroaniline	0.036	U	mg/L	EPA 8270		08/27	08/29	MTT
4	Acenaphthene	0.298		mg/L	EPA 8270		08/27	08/29	MTT
- 5									



Matrix

#### COMMERCIAL TESTING & ENGINEERING CO.

**ENVIRONMENTAL LABORATORY SERVICES** 

:93.4301-16

REPORT of ANALYSIS

Chemlab Ref.#

Client Sample ID :BTR-SS14-SW01 SPIKE DUPLICATE

0.036

0.036

0.036

0.036

0.036

U

U

U

U

mg/L

mq/L

mg/L

ma/L

mq/L

:WATER

08/27 08/29 0.036 **EPA** 8270 MTT 2.4-Dinitrophenol mg/L 08/27 08/29 **EPA** 8270 MTT 4-Nitrophenol 0.153 mg/L **EPA** 8270 08/27 08/29 Dibenzofuran 0.036 mq/L MTT 2.4-Dinitrotoluene 0.304 **EPA 8270** 08/27 08/29 MTT mq/L Diethylphthalate 08/27 08/29 0.036 U mg/L EPA 8270 MTT **EPA** 8270 08/27 08/29 4-Chlorophenyl-Phenylet 0.036 U MIT mg/L 0.036 U **EPA** 8270 08/27 08/29 Fluorene mg/L MTT 4-Nitroaniline 0.036 U **EPA** 8270 08/27 08/29 HTT mg/L 4,6-Dinitro-2-Methylphe 0.036 U EPA 8270 08/27 08/29 MIT mg/L 0.036 08/27 08/29 n-Nitrosodiphenylamine U EPA 8270 MTT mg/L **EPA 8270** 08/27 08/29 MTT 0.036 4-Bromophenyl-Phenyleth U mg/L EPA 8270 08/27 08/29 Hexachlorobenzene 0.036 MIT mq/L **EPA 8270** 08/27 08/29 MTT Pentachlorophenol 0.098 mg/L 0.036 **EPA** 8270 08/27 08/29 MIT Phenanthrene - 11 mg/L 0.036 **EPA** 8270 08/27 08/29 MTT Anthracene 11 mg/L di-n-Butylphthalate 0.361 **EPA** 8270 08/27 08/29 MTT mg/L EPA 8270 08/27 08/29 MTT Fluoranthene 0.036 U mg/L EPA 8270 08/27 08/29 MTT Pyrene 0.318 mg/L 08/27 08/29 Butylbenzylphthalate 0.036 U mg/L **EPA** 8270 MTT 08/27 08/29 3,3-Dichlorobenzidine 0.036 U mg/L EPA 8270 MTT 08/27 08/29 Benzo(a)Anthracene 0.036 U mq/L EPA 8270 MIT 08/27 08/29 0.036 U EPA 8270 MII Chrysene mq/L bis(2-Ethylhexyl)Phthal 0.036 EPA 8270 08/27 08/29 U mq/L di-n-Octylphthalate 0.036 U mq/L **EPA** 8270 08/27 08/29 08/27 08/29 Benzo(b)Fluoranthene 0.036 U mg/L EPA 8270 MIT

EPA 8270

EPA 8270

EPA 8270

EPA 8270

EPA 8270

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

Benzo(k)Fluoranthene

Indeno(1,2,3-cd)Pyrene

Dibenz(a,h)Anthracene

Benzo(g,h,i)Perylene

Benzo(a)Pyrene

UA = Unavailable

08/27 08/29

08/27 08/29

08/27 08/29

08/27 08/29

08/27 08/29 .

MIT

MIT

MIT

MIT

MTT

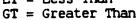
5633 B STREET

TEL: (907) 562-2343 FAX: (907) 561-5301

ANCHORAGE, AK 99518

NA = Not Analyzed

LT = Less Than





Member of the SGS Group (Société Générale de Surveillance)

ICF ID	BTR-SS14-S01	BTR-SS14-S02	BTR-SS14-S03	BTR-SS14-S04	BTR-SS14-S06	BTR-SS14-2S05
F&BI Number	339	341	343	345	347	1706
Sample Type	soil	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93	9/2/93
% Dry Weight	99	90	95	97	96	69
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#5-09/05/93
Leaded Gas						
JP-4	< 50	< 500	< 50	< 50	< 50	< 200
Lube Oil	< 100	27000	2300	410	< 100	< 400
Diesel	<50 J	<del>12000</del> 1240	W 5180 5800	T 48000 550	∞T <del>-5300</del> 3100	
Spike Level						
Unknown Semi-volatile						
Pentacosane	110	120	103	108	116	63
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	
PCB 1221	< 0.5	< 8.5 4.5	< 0.6	< 0.5	< 0.5	
PCB 1232	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5	
PCB 1016	< 0.5	<b>≤9.</b> 5	< 0.6	< 0.5	< 0.5	
PCB 1242	< 0.5	< 0.5	< 0.6	< 0.5	< 0.5	
PCB 1248	< 0.5	<0.5 √	< 0.6	< 0.5	< 0.5	
PCB 1254	< 0.5	< 5	< 0.6	< 0.5	< 0.5	
PCB 1260	< 0.5	≤ <del>0.5</del> <5	< 0.6	< 0.5	< 0.5	
Spike Level						
Dibutyl Chlorendate	104	108	96	102	96	
Sequence Date	#6-08/23/93					
alpha-BHC	<0.02 ⊅					
beta-BHC	< 0.02					
gamma-BHC	< 0.02					
delta-BHC	< 0.02					
Heptachlor	< 0.02					
Aldrin	< 0.02					
Heptachlor Epoxide	< 0.02					
Endosulfan l	< 0.02					
DDE	< 0.02					
Dieldrin	< 0.02					
Endrin	< 0.02					
Endosulfan II	< 0.02					
DDD	< 0.02					
Endrin Aldehyde	< 0.02					
DDT	< 0.02					
Endosulfan Sulfate	< 0.02					
Endrin Ketone	<0.02 √					
Methoxy Chlor	< 9.1 Las	J				
Chlordane	< 0.5 J					
Dibutyl Chlorendate	104					
Spike Level	//4.0.0.00.00.4.00.					
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#3&4-09/06/93
CCI4	< 0.02	< 0.02	<0.02 R	< 0.02 K	< 0.02 R	< 0.1
TCA	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.1
Benzene	< 0.02	0.4	< 0.02	< 0.02	< 0.02	< 0.03
TCE	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.1
Toluene	< 0.02	0.6	< 0.02	< 0.02	0.06	< 0.03
PCE	< 0.02	0.06	0.06	< 0.02	< 0.02	< 0.1
Ethylbenzene Vulana	< 0.02	14	8.2	< 0.02	0.09	< 0.03
Xylenes Coorline	< 0.04	10 🗸	40 1	<0.04∜	0.09 🗸	< 0.06
Gasoline Spike level	<25	250208	190 J	1781185	1381907	£224J
Spike level BFB	ດວ	102	00	07	0.4	<b></b>
ם וע	93	103	96	97	94	78

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	2508-	3 25¢8-3	3 2568-		ን
ICF ID	BTR-SS14-2806-3	BTR-SS14- <del>2S06-3</del> (	BTR-SS14- <del>2S06-3</del> -	BTR-SS14- <del>2S06-3-</del>	BTR-SS14-2S07
F&BI Number	1708 ⁽¹⁾	1708 dup & 👭	1708 ms	1708 msd	1710
Sample Type	soil	soil	soil	soil	soil
Date Received	9/2/93	9/2/93	9/2/93	9/2/93	9/2/93
% Dry Weight	98				76
Sequence Date	<b>#5-09</b> /05/93	#5-09/05/93	#5-09/05/93	#5-09/05/93	#5-09/05/93
Leaded Gas					
JP-4	< 50	< 50			< 60
Lube Oil	< 100	< 100			< 120
Diesel	<50 J	< 50	77	85	< <del>60</del> 8460 J
Spike Level			500	500	
Unknown Semi-volatile					
Pentacosane	53	52	70	70	94
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93
CCI4	< 0.1	< 0.1	57	62	< 0.1
TCA	< 0.1	< 0.1	116	126	< 0.1
Benzene	< 0.02	< 0.02	49	67	1.4 N
TCE	< 0.1	< 0.1	115	120	1.2
Toluene	< 0.02	< 0.02	102	106	2.3 丁
PCE	< 0.1	< 0.1	140	140	3.9
Ethylbenzene	< 0.02	< 0.02	113	116	0.4 \( \( \)
Xylenes	< 0.04	< 0.04	114	117	1.7 🛣
Gasoline	st22J	KT L25	•		ST 700J
Spike level			1	1	
BFB	86	82	106	101	122

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ICF ID	BTR-SS14-2S07	BTR-SS14-SD01	BTR-SS14-SW01	BTR-SS14-SW01	BTR-SS14-SW01		
F&BI Number	1710 dup	349	336	333	334		
Sample Type	soil	soil	water	water	water		
Date Received	9/2/93	8/23/93	8/23/93	8/23/93	8/23/93		
% Dry Weight	69	76		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Sequence Date		#6-08/23/93		#6-08/23/93			
Leaded Gas				,, , , , , , , , , , , , , , , , , , , ,			
JP-4		< 700		< 1000			
Lube Oil		13000		< 2000			
Diesel		4300-5100	エ	1 <del>200</del> -610	00T		
Spike Level			•	1200	J		
Unknown Semi-volatile							
Pentacosane		101		82			
Sequence Date	•						
PCB 1221							
PCB 1232					٠		
PCB 1016							
PCB 1242							
PCB 1248							
PCB 1254							
PCB 1260							
Spike Level							
Dibutyl Chlorendate							
Sequence Date				#6-08/23/93			
alpha-BHC				#0-00/23/33 <2 J			
beta-BHC				<2			
gamma-BHC				<2			
delta-BHC				<2			
Heptachlor				<2			
Aldrin				<2			
Heptachlor Epoxide				<2			
Endosulfan I				<2			
DDE				<2			
Dieldrin				<2			
Endrin				<2			
Endosulfan II				<2			
DDD				<2			
Endrin Aldehyde				<2			
DDT				<2			
Endosulfan Sulfate				<2			
Endrin Ketone				<2			
Methoxy Chlor				£18∠503	-		
Chlordane				<50.3			
Dibutyl Chlorendate				82			
Spike Level							
Vol Sequence		#1&2-08/24/93	#3&4-08/24/93				
CCI4		< 0.3	<1				
TCA		< 0.3	<1				
Benzene		< 0.3	<1				
TCE		< 0.3	<1				
Toluene		1	<1				
PCE		< 0.3	<1				
Ethylbenzene		A1)	<1				
Xylenes .		2.8475	8 丁				
Gasoline		390J 550-L100J					
Spike level							
BFB		103	109				
			•••				

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ANALYTICAL DATA SHEETS FOR THE WEATHER STATION BUILDING (SS15) (Formerly identified as AOC1)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemiab Ref.# :93.4198-1 Client Sample ID :BTR AOC1 >501

Matrix

:SOIL 5815 SM63-94

5633 8 STREET ANCHORAGE, AK 99518 TEL: 1907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

: ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS :DEW LINE :BARTER

PWSID

: UA

RUSH Order

:69762

Report Completed :08/23/93 Collected

:08/16/93 @ 16:20 hr: :08/19/93 @ 18:45 hr:

Received Technical Director: STEPHEN.C. FIE

Released By : Staten Call

Sample Remarks: SAMPLE COLLECTED BY: UA.

 Parameter	Results	Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	91.6 6100	D	<b>₹</b> ¤g/Kg	SM17 2540G 3510/3550/8100M		08/20	08/20 08/21	MDU
VPH & BTEX Hydrocarbons VPH	216	С	m <b>g/K</b> g	EPA 8015M/8020 EPA 5030/8015m			08/21	WLS
Benzene Toluene Ethylbenzene pan Xylene o-Xylene	0.020 0.020 0.196 0.129 0.134	U U	ng/Kg ng/Kg ng/Kg ng/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/22	HLS HLS HLS HLS HLS

See Special Instructions Above

See Sample Remarks Above

Undetected. Reported value is the practical quantification limit. = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than GT = Greater Than



Member of the SGS Group (Societé Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

Chemiab Ref. #

:93.4198-2

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

Client Sample ID :BTR AGCT SO1 SPIKE

Matrix

:SOIL 8815 gut 125.95

FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

:69762

Ordered By

:RAY MORRIS

RUSH Order

Project Name

Report Completed :08/24/93

Project#

:DEW LINE

Collected :08/16/93 @ 16:20 hrs.

PWSID

:BARTER

:UA

Received :08/19/93 @ 18:45 hrs. Technical Director: STEPHEN C. FOE
Released By : Stephen C. 4

Sample Remarks: SAMPLE COLLECTED BY: UA. FOR SPIKING LEVELS AND SPIKED SAMPLE:

PERCENT RECOVERIES, SEE QA/QC PACKAGE. CORRECTED CLIENT SAMPLE ID.

Parameter		Results	Qual	Units	Method	Allowable Limits	Ext. Date	A <b>nal</b> D <b>ate</b>	Init
Percent Sol Hydrocarbor		91.6 6 <b>99</b> 0	D	% mg/Kg	SM17 2540G 3510/3550/8100M		08/20	08/20 08/21	HDU JBH
VPH & BTEX Hydrocarbor	ns VPH	1190	D	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzer p&m Xylene o-Xylene	ne	13.9 75.6 15.6 53.2 23.0	ם ם	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21	WLS WLS WLS

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

Chemiab Ref.#

:93.4198-3

Client Sample ID :BTR AOC1 SO1 SPIKE DUPLICATE

Matrix

:SOIL SSI5 ON F 12.5.95

5633 8 STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By

:RAY MORRIS

Project Name

:DEW LINE :BARTER

Project# PWSID

:UA

RUSH Order

:69762

Report Completed :08/24/93

:08/16/93

@ 16:20 hrs.

Collected Received

:08/19/93 @ 18:45 hrs.

Technical Director: STEPHEN C. EDE

Released By : Milli

Sample Remarks: SAMPLE COLLECTED BY: UA. SPIKED SAMPLE: FOR SPIKING LEVELS AND PERCENT RECOVERIES, SEE QA/QC PACKAGE. CORRECTED CLIENT SAMPLE ID.

Parameter	Results	Qual QC	Units	Method	Allowable Limits	Ext. Date	A <b>nal</b> D <b>ate</b>	Init
Percent Solids Hydrocarpons EPH	91.6 6 <b>590</b>	D	<b>%</b> m <b>g/</b> Kg	SM17 2540G 3510/3550/8100M		08/20	08/20 08/21	M <b>DU</b> J <b>BH</b>
VPH & BTEX Hydrocarbons VPH	1180	ם	m <b>g/K</b> g	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzene Xylene -Xylene	13.7 75.8 16.0 53.1 23.0	D D D D	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020			08/21 08/21 08/21	WLS WLS WLS WLS

See Special Instructions Above

See Sample Remarks Above

Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemiab Ref.#

:93.4198-4 Client Sample ID :BTR AGCTV S02

Matrix

:SOIL SSIS

Smf

5633 8 STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 581-5301

Client Name

: ICF KANSER ENGINEERING

: RAY MORRIS

Ordered By Project Name Project#

:DEW LINE : BARTER

PWSID

: UA

RUSH Order

Received

:69762

Report Completed Collected

:08/23/93

:08/16/93

@ 16:35 hrs :08/19/93 @ 18:45 hrs

Technical Director: STEPHEN C. FIE
Released By : Japan

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarpons EPH	9 <b>3.</b> 4 8 <b>42</b> 0	۵	<b>\</b> m <b>g/</b> Kg	SM17 2540G 3510/3550/8100M		08/20	08/20 08/21	MDU JBH
VPH & BTEX Hydrocarbons VPH	1020	D	m <b>g/K</b> g	EPA 8015M/8020 EPA 5030/8015m		08/20	08/22	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.137 1.09 1.29 1.05	U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21	WLS WLS WLS

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Societé Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

Chemiab Ref. # Client Sample ID :BTR AGET 503
Matrix :SOIL 5515

:93.4198-5

8mf 11-3-94

Client Name

: ICF KAISER ENGINEERING

RUSH Order :69762 Report Completed

Ordered By Project Name

: RAY MORRIS :DEW LINE

:08/23/93 Collected :08/16/93

Project# PWSID

:BARTER

Received

@ 16:45 hr: :08/19/93 @ 18:45 hr:

:UA

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	Quai QC	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	9 <b>5.4</b> 2 <b>090</b>	D C	<b>₹</b> mg/Kg	SM17 2540G 3510/3550/8100M		08/20	0 <b>8/2</b> 0 08/21	HOU
VPH & BTEX Hydrocarbons VPH	11.1		m <b>g/K</b> g	EPA 8015M/8020 EPA 5030/8015m		08/20		WLS
Benzene Toluene Ethylbenzene pan Xylene	0.020 0.020 0.056 0.051 0.047	ט	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21	HLS HLS HLS HLS HLS

See Special Instructions Above

See Sample Remarks Above

Undetected. Reported value is the practical quantification limit.

= Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Societé Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemiab Ref.# Client Sample ID :BTR AOG1 S03

:93.4178-1

Matrix

:SOIL

SS15 8mf 11-3-94

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:DEW LINE

PWSID

:RAY MORRIS

:BARTER :UA

WORK Order

Report Completed Collected

Received

:69710 :09/30/93

:08/16/93 @ 16:45 hrs. :08/19/93 @ 10:50 hrs.

5633 B STREET ANCHORAGE, AK 99518 FEL (907) 562-2343

FAX (907) 561-5301

Technical Director: STEPHEN ,C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M., PETER J.M.G. 8270 EXTRACT LOST DURING

PREPARATION, UNABLE TO ANALYZE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		09/20	09/28	127.734
Bromobenzene	0.020	U	mg/Kg	EPA 8260			09/28	KWM KWM
Bromochloromethane	0.020	ប	mg/Kg	EPA 8260			09/28	KWM
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260			09/28	KWH
Bromoform	0.020	U	mg/Kg	EPA 8260			09/28	KWM
Bromomethane	0.020	บ	mg/Kg	EPA 8260			09/28	KWM
n-Butylbenzene	0.020	U	mg/Kg	EPA 8260			09/28	K <u>wa</u>
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260		09/20		, tan
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260		09/20		
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/20		KWH
Chlorobenzene	0.020	U	mg/Kg	EPA 8260		09/20		KWH
Chloroethane	0.020	บ	mg/Kg	EPA 8260		09/20		KWM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/20		KWM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/20		KWM
2-Chlorotoluene	0.020	U	mg/Kq	EPA 8260		09/20		KWM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/20		KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/20		KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/20		KWM
1.2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/20		KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/20		KWM
1,2-Dichlorobenzene	0.020	ប	mg/Kg	EPA 8260		09/20		KWM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/20		KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/20		KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/20	09/28	KWM
1,1-Dichloroethane 1,2-Dichloroethane	0.020		m <b>g/K</b> g	EPA 8260		09/20	09/28	KWM
	0.020		m <b>g/K</b> g	EPA 8260		09/20	09/28	KWM
1,1-Dichloroethene	0.020		mg/Kg	EPA 8260		09/20	09/28	KWM
cis-1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		09/20	09/28	KWM
trans1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		09/20	09/28	KWM
1,2-Dichloropropane	0.020		mg/Kg	EPA 8260		09/20	09/28	KWM
1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		09/20	09/28	KWM
2.2-Dichloropropane	0.020		mg/Kg	EPA 8260		09/20		KWM
1,1-Dichloropropene	0.020		mg/Kg	EPA 8260		09/20		KWM
Ethylbenzene	0.020		mg/Kg	EPA 8260		09/20		KWM
Hexachlorobutadiene	0.020		mg/Kg	EPA 8260		09/20	09/28	KWM
Isopropylbenzene	0.020	บ	mg/Kg	EPA 8260		09/20		K





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS lab Ref.# :93.4178-1 5633 B STREET ANCHORAGE, AK 99518 Crient Sample ID :BTR AGE1 S03 TEL: (907) 562-2343 Matrix :SOIL FAX (907) 561-5301 CSSIE Emf. 394 0.020 p-Isopropyltoluene U mq/Kq **EPA** 8260 09/20 09/28 KWM Methylene Chloride 0.020 U mg/Kq EPA 8260 09/20 09/28 KWM Napthalene 0.0083 mg/Kg **EPA** 8260 09/20 09/28 KWM n-Propylbenzene 0.020 [] mg/Kg EPA 8260 09/20 09/28 KWM Styrene 0.020 U mg/Kg EPA 8260 09/20 09/28 KWM 1112-Tetrachloroethane 0.020 H mg/Kg **EPA** 8260 09/20 09/28 KWH 1122-Tetrachloroethane 0.020 u mg/Kg **EPA** 8260 09/20 09/28 KWM Tetrachloroethene 0.020 U mg/Kg EPA 8260 09/20 09/28 KWM Toluene 0.020 U mq/Kg **EPA** 8260 09/20 09/28 KWM 1,2,3-Trichlorobenzene 0.020 U **EPA** 8260 mg/Kg 09/20 09/28 KWM 1,2,4-Trichlorobenzene 0.020 U mg/Kg EPA 8260 09/20 09/28 KWM 1,1,1-Trichloroethane 0.020 U mg/Kg EPA 8260 09/20 09/28 KWM 1,1,2-Trichloroethane 0.020 11 mg/Kg **EPA 8260** 09/20 09/28 KWM Trichloroethene 0.020 U mg/Kg EPA 8260 09/20 09/28 KWM Trichlorofluoromethane 0.020 U mg/Kg EPA 8260 09/20 09/28 KWM 1,2,3-Trichloropropane 0.020 U mg/Kg **EPA** 8260 09/20 09/28 KWM 1,2,4-Trimethylbenzene 0.020 U ma/Ka EPA 8260 09/20 09/28 KWM 1,3,5-Trimethylbenzene 0.084 ma/Ka EPA 8260 09/20 09/28 KWM Vinyl Chloride 0.020 U mq/Kq **EPA 8260** 09/20 09/28 KWM p+m-Xylene 0.051 mg/Kg EPA 8260 09/20 09/28 KWM o-Xylene 0.028 mg/Kg **EPA** 8260 09/20 09/28 KWM

See Sample Remarks Above

Undetected, Reported value is the practical quantification limit. Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Generale de Surveillance)

See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES



5633 B STREET ANCHORAGE, AK 99518

TEL: (907) 562-2343

FAX: (907) 561-5301

REPORT of ANALYSIS

Chemlab Ref.#

:93.4198-6

Client Sample ID :BTR AGE: 504

Matrix

:SOIL

5515 Souf 1+3-94

Client Name Ordered By

:ICF KAISER ENGINEERING : RAY MORRIS

Project Name

:DEW LINE :BARTER

Project# PWSID

:UA

RUSH Order

:69762

Report Completed

:08/23/93

Collected Received

:08/16/93

@ 17:00 hr. :08/19/93 @ 18:45 hr

Technical Director: STEPHEN C. FIE

Released By : Market

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results Qu	QC ual Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	9 <b>4.9</b> 214	<b>%</b> m <b>g/K</b> g	SM17 2540G 3510/3550/8100M		08/20	0 <b>8/2</b> 0 0 <b>8/2</b> 1	MDK JBF
VPH & BTEX Hydrocarbons VPH	1.46	<b>™g/K</b> g	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 U 0.020 U 0.020 U 0.023 0.020 U	mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21	WLE WLS SUS SUS

See Special Instructions Above

** See Sample Remarks Above

U = Undetected. Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4198-7

Client Sample ID :BTR AGET 505
Matrix :SOIL 5515

gmf 11.3.94

5633 B STREET ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

: ICF KAISER ENGINEERING

Ordered By Project Name

: RAY MORRIS

Project#

PWSID

:BARTER

:DEW LINE

:UA

RUSH Order

Report Completed :08/23/93

:69762

Collected

:08/16/93 @ 17:05 hr:

Received Technical Director: Speriew C. EDE

:08/19/93 @ 18:45 hr:

Released By : Statem 6. Este

Sample Remarks: SAMPLE COLLECTED BY: UA. 6.39 MG/KG OF EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL.

 Parameter	Results	Qual Qual	Units	Method	Allowable Limits	Ext. Date	A <b>nal</b> Date	Init
Percent Solids Hydrocarbons EPH	96.0 107		<b>\</b> m <b>g/K</b> g	SM17 2540G 3510/3550/8100M		08/20	08/20	MDC
VPH & BTEX Hydrocarbons VPH	5.30		m <b>g/K</b> g	EPA 8015M/8020 EPA 5030/8015m		08/20		WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.071 0.249 0.227	U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20 08/20	08/21 08/21 08/21	WLS WLS WLS WLS

See Special Instructions Above

See Sample Remarks Above

Undetected. Reported value is the practical quantification limit.

Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Societé Générale de Surveillance)

	cer	0015 000	7
ICF ID	SS(5 BTR <del>.A0C1</del> -2S06	SS\5-28¢ BTR: <del>A061-2806</del>	7 SS 15-25¢8 BTR- <del>AOC1-2806</del>
F&BI Number	1682	1684	1686
Sample Type	soil	soil	soil
Date Received	9/2/93	9/2/93	9/2/93
% Dry Weight	91	93	85
Sequence Date	#5-09/05/93	#5-09/05/93	#5-09/05/93
Leaded Gas			
JP-4	< 50	< 50	< 60
Lube Oil	< 100	< 100	< 120
Diesel	<50 丁	<50 J	< 60 J
Spike Level			
Unknown Semi-volatile			
Pentacosane	80	80	87
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate Sequence Date			
aipha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93
CCI4	< 0.1	<0.1	< 0.1
TCA	< 0.1	< 0.1	< 0.1
Benzene	< 0.02	< 0.02	< 0.02
TCE	< 0.1	< 0.1	< 0.1
Toluene	< 0.02	< 0.02	< 0.02
PCE	< 0.1	< 0.1	< 0.1
Ethylbenzene	< 0.02	0.1 🍑	< 0.02
Xylenes	< 0.04	0.2丁	< 0.04
Gasoline	K1225	4 diesel J	et 22 J
Spike level			
BFB	94	98	116

mk al

ANALYTICAL DATA SHEETS FOR THE WHITE ALICE FACILITY (SS16) (Formerly identified as AOC7)

	<b>5516</b>	9516	SS16	8516	SSIL
ICF ID	BTR- <del>A0C07</del> -S01	BTR <del>-A0C07</del> -S02	BTR- <del>AOCO7</del> -SO3	BTR- <del>A0C07</del> -S04	BTR- <del>A0007</del> -S05
F&BI Number	320	321	370	371	372
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	94	97	96	94	96
Sequence Date			#6-08/23/93	#6-08/23/93	#6-08/23/93
Leaded Gas					
JP-4			< 50	< 50	< 50
Lube Oil			< 100	< 100	< 100
Diesel			< 50 3	<50J	< <b>50 J</b>
Spike Level					
Unknown Semi-volatile					
Pentacosane			104	101	96
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93
PCB 1221	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1
PCB 1232	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1
PCB 1016	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1
PCB 1242	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1
PCB 1248	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1
PCB 1254	£ <del>0.5</del> 525		< 0.1	< 0.1	< 0.1
PCB 1260	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1
Spike Level					
Dibutyl Chlorendate	120	96	114	104	104
Sequence Date	#6-08/23/93				
alpha-BHC					
beta-BHC	< 0.02				
gamma-BHC	< 0.02				
delta-BHC	< 0.02				
Heptachlor	< 0.02				
Aldrin	< 0.02				
Heptachlor Epoxide	< 0.02				
Endosulfan i	< 0.02				
DDE	< 0.02				
Dieldrin	< 0.02				
Endrin	< 0.02				
Endosulfan II	< 0.02				
DDD	< 0.02				
Endrin Aldehyde	< 0.02				
DDT	< 0.02				
Endosulfan Sulfate	< 0.02				
Endrin Ketone	< 0.02				
Methoxy Chlor	< 0.2				
Chlordane	<1				
Dibutyl Chlorendate	120	96			
Spike Level					
Vol Sequence					
CCI4					
TCA					
Benzene TCE					
Toluene					
PCE					
Ethylbenzene		•			
Xylenes					
Gasoline					
Spike level					
Spike level					

BFB



IOT ID	SS 6	5516	SS16	5516	55 (6 BTR- <del>A007</del> -2810
ICF ID	BTR- <del>A0007</del> -S06	BTR- <del>A0007</del> -S07	BTR- <del>A067</del> -2S08-1	BTR- <del>A007</del> -2S09	1673
F&BI Number	373	374 	1671	1672	
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	9/2/93	9/2/93	9/2/93
% Dry Weight	95	92	91	97	97
Sequence Date	#6-08/23/93	#6-08/23/93			
Leaded Gas		.50			
JP-4	< 50	< 50			
Lube Oil	< 200 interferences				
Diesel	<50 寸	<50 J			
Spike Level					
Unknown Semi-volatile					
Pentacosane	93	93			UE 0010 1100
Sequence Date	#6-08/23/93	#6-08/23/93	#5-09/04/93	<b>#5-09/04/93</b>	#5-09/04/93 
PCB 1221	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5
PCB 1232	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5
PCB 1016	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5
PCB 1242	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5
PCB 1248	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5
PCB 1254	21-205	2 <del>0</del> 30J	< 0.5	<b>≤8.5</b> 8.7J	
PCB 1260	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5
Spike Level					
Dibutyl Chlorendate	130	145	91	97	97
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan l					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence					
CCI4					
TCA					
Benzene					
TCE					
Toluene					
PCE					
Ethylbenzene					
Xylenes					
Gasoline					
Spike level					
DED					

BFB

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ICF ID WAR F&BI Number Sample Type Date Received % Dry Weight Sequence Date Leaded Gas JP-4 Lube Oil Diesel Spike Level	SSI6 BTR- <del>A0C7</del> -2S11 1674 soil 9/2/93 97	S _S 16 BTR- <del>A067</del> -2S12 1675 soil 9/2/93 95	SSIG BTR- <del>A007</del> -2S13 1676 soil 9/2/93 95
Unknown Semi-volatile			
Pentacosane			
Sequence Date	#5-09/04/93	#5-09/04/93	#5-09/04/93
PCB 1221	< 0.5	< 0.5	< 0.5
PCB 1232	< 0.5	< 0.5	< 0.5
PCB 1016	< 0.5	< 0.5	< 0.5
PCB 1242	< 0.5	< 0.5	< 0.5
PCB 1248	< 0.5	< 0.5	< 0.5
PCB 1254	< 0.5	< 0.5	< 0.5
PCB 1260	< 0.5	< 0.5	< 0.5
Spike Level Dibutyl Chlorendate Sequence Date	97	95	95
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence			
CCI4			
TCA			
Benzene			
TCE			
Toluene			
PCE			
Ethylbenzene			
Xylenes			
Gasoline			
Spike level			

BFB

ANALYTICAL DATA SHEETS FOR THE POL TANKS (ST17) (Formerly identified as AOC8)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-4 Client Sample ID :BTR-AOCO8-S04

Matrix

PWSID

:SOIL STI7 8mf 113.94

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS :DEW LINE :BARTER :UA

WORK Order

Received

:70001

Report Completed Collected

:09/28/93

:08/20/93 @ 11:00 hr. :08/24/93 @ 12:00 hr:

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN, C. EDE

Released By:

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

00

	Parameter 	Results	QC Qua]	L Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
!	Volatile Organics Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane n-Butylbenzene sec-Butylbenzene tert-Butylbenzene carbon Tetrachloride Chlorobenzene Chlorotenane Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 12Dibromo3Chloropropane 1,2-Dibromoethane Dibromomethane 1,2-Dichlorobenzene 1,4-Dichlorobenzene 1,4-Dichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,2-Dichloroethene 1,2-Dichloroethene 1,2-Dichloropropane 1,3-Dichloropropane 1,1-Dichloropropane	0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250 0.250	מממממממממממממממממממממממממממממממממממממממ	Units  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag  Majkag	Method  EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260		08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25 08/25	09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06 09/06	SESSESSESSESSESSESSESSESSESSESSESSESSES
							08/25 (	9/ UQ	SGM



ENVIRONMENTAL LABORATORY SERVICES



SIT-CE 1908	D50000		
Chemlab Ref.# :93.4302-	REPORT of AN	MALYSIS	5622 B 67055
Client Sample ID :BTR-AOGO	6-504		563 <b>3 B S</b> TREE ANCHORAGE, <b>A</b> K 99511
Matrix :SOIL ST	7.		TEL: (907) 562-234:
<i>5</i> n	uf 113.94		FAX: (907) 561-530
Methylene Chloride	0.250 U mg/Kg	EDN 0260	00/25 00/06
Napthalene	0.250 U mg/Kg	EPA 8260 EPA 8260	08/25 09/06 Sc
n-Propylbenzene	0.250 U mg/Kg	EPA 8260	08/25 09/06 SC
Styrene	0.250 U mg/Kg	EPA 8260	08/25 09/06 SC
1112-Tetrachloroethane	0.250 U mg/Kg	EPA 8260	08/25 09/06 SC
1122-Tetrachloroethane	0.250 U mg/Kg	EPA 8260	08/25 09/06 SC
Tetrachloroethene	0.250 U mg/Kg	EPA 8260	08/25 09/06 S0
Toluene	0.250 U mg/Kg	EPA 8260	08/25 09/06 so 08/25 09/06 so
1,2,3-Trichlorobenzene	0.250 U mg/Kg	EPA 8260	
1,2,4-Trichlorobenzene	0.250 U mg/Kg	EPA 8260	
1,1,1-Trichloroethane	0.250 U mg/Kg	EPA 8260	
1,1,2-Trichloroethane	0.250 U mg/Kg	EPA 8260	08/25 09/06 SG 08/25 09/06 SG
Trichloroethene	0.250 U mg/Kg	EPA 8260	08/25 09/06 SG
Trichlorofluoromethane	0.250 U mg/Kg	EPA 8260	08/25 09/06 SG
1,2,3-Trichloropropane	0.250 U mg/Kg	EPA 8260	08/25 09/06 SG
1,2,4-Trimethylbenzene	0.250 U mg/Kg	EPA 8260	08/25 09/06 SG
1,3,5-Trimethylbenzene Vinyl Chloride	0.511 D mg/Kg	EPA 8260	<del>0</del> 8/25 09/06 SG
p+m-Xylene	0.300 U mg/Kg	EPA 8260	08/25 09/06 SG
o-Xylene	0.300 U mg/Kg	EPA 8260	08/25 09/06 SG
c Myzeric	0.300 U mg/Kg	EPA 8260	08/25 09/06 SG
Semivolatile Organics			
Phenol	2 50 11	EPA 8270	
bis(2-Chloroethyl)ether	2.50 U mg/Kg 2.50 U mg/Kg	EPA 8270	09/03 09/20 MT
2-Chlorophenol	0 50	EPA 8270	09/03 09/20 MT
1,3-Dichlorobenzene	2 54	EPA 8270	09/03 09/20 MT
1,4-Dichlorobenzene	2 22	EPA 8270	09/03 09/20 MT
Benzyl Alcohol		EPA 8270	09/03 09/20 MT1
1,2-Dichlorobenzene	2.50 U mg/Kg 2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
2-Methylphenol	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
bis(2-Chloroisopropyl)e	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
4-Methylphenol	2.50 U mg/Kg	EPA 8270 EPA 8270	09/03 09/20 MTT
n-Nitroso-di-n-Propylam	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
Hexachloroethane	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
Nitrobenzene	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
Isophorone	2.50  U  mg/Kg	EPA 8270	
2-Nitrophenol	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
2,4-Dimethylphenol Benzoic Acid	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
bis(2-Chloroethoxy)Meth 2,4-Dichlorophenol	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
1,2,4-Trichlorobenzene	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
Naphthalene	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
4-Chloroaniline	2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
Hexachlorobutadiene	2.50 U mg/Kg 2.50 U mg/Kg	EPA 8270	09/03 09/20 MTT
4-Chloro-3-Methylphenol	2 52	EPA 8270	09/03 09/20 MTT
2-Methylnaphthalene	0 00	EPA 8270	09/03 09/20 MTT
Hexachlorocyclopentadie	0 50	EPA 8270	09/03 09/20 MTT
2,4,6-Trichlorophenol	2.50 U mg/Kg 2.50 U mg/Kg	EPA 8270 .	09/03 09/20 MTT
2,4,5-Trichlorophenol	2.50 U mg/Kg	EPA 8270	09/03 09/20
2-Chloronaphthalene	2.50 U mg/Kg	EPA 8270 EPA 8270	09/03 09/20
		DIA UZIU	09/03 09/20 MTT



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-4 Client Sample ID :BTR-A0C08-S04

BFM 11.7.94 :SOIL Matrix ST 17

ANCHORAGE. AK 99518

ANCHORAGE. AK 99518

TEL: (907) 562-2343

FAX: (907) 561-5301

Macrix	.5015	5T17	<b>U</b>				,				
2-Nitroaniline	2		2.50	U	mg/Kg	EPA	8270		09/03		MT
Dimethylphthal			2.50	U	mg/Kg	EPA	8270		09/03		MT
Acenaphthylene			2.50	U	mg/Kg	EPA	8270		09/03		MT
2.6-Dinitroto			2.50	U	mg/Kg	EPA	8270		09/03		MTT.
3-Nitroaniline			2.50	U	mg/Kg		8270		09/03	-	MTT.
Acenaphthene			2.50	U	mg/Kg		8270		09/03		MIT
2,4-Dinitrophe	enol		2.50	U	mg/Kg		8270		09/03		MT
4-Nitrophenol			2.50	Ü	mg/Kg	EPA	8270		09/03		MT
Dibenzofuran			2.50	U	mg/Kg	EPA	8270		09/03		MT
2.4-Dinitroto	luene		2.50	U	mg/Kg	EPA	8270		09/03		MTT
Diethylphthala			2.50	U	mg/Kg	EPA	8270		09/03	09/20	MT
4-Chloropheny	L-Phenylet	5	2.50	U	mg/Kg		8270		09/03		MTI
Fluorene	-		2.50	U	mg/Kg	EPA	8270		09/03		MTI
4-Nitroanilin	2		2.50	U	mg/Kg	EPA	8270		09/03		MTI
4,6-Dinitro-2		9	2.50	U	mg/Kg	EPA	8270		09/03		MTT
n-Nitrosodiph			2.50	U	mg/Kg	EPA	8270		09/03		MTT
4-Bromophenyl		מ	2.50	U	mg/Kg		8270		09/03	09/20	MTT
Hexachloroben			2.50	U	mg/Kg	EPA	8270		09/03		MTI
Pentachloroph	enol		2.50	U	mg/Kg	EPA	8270 (T)	-D.1	09/03		MTT
Phenanthrene			2.50	U	mg/Kg	EPA	8270 `		09/03		MTI
Anthracene			2.50	U	mg/Kg		8270		09/03		MTI
di-n-Butylpht	halate		2.50	U	mg/Kg		8270		09/03	-	MTT
Fluoranthene			2.50	U	mg/Kg	EPA	8270			09/20	MTT
Pyrene			2.50	U	mg/Kg		8270			09/20	MTI
Butylbenzylph	thalate		2.50	U	mg/Kg		8270			09/20	MTT
3,3-Dichlorob	enzidine		2.50	U	mg/Kg		8270			09/20	MTT
Benzo(a)Anthr	acene		2.50	U	mg/Kg		8270			09/20	MTT
Chrysene			2.50	U	mg/Kg		8270			09/20	MTT
bis(2-Ethylhe	xyl)Phtha	1	2.50	U	mg/Kg		8270			09/20	MTT
di-n-Octylpht	halate		2.50	U	mg/Kg		8270			09/20	MTT
Benzo(b)Fluor	anthene		2.50	U	mg/Kg		8270			09/20	MTT
Benzo(k)Fluor			2.50	U	mg/Kg		8270			09/20	TTM
Benzo(a)Pyren	e		2.50	U	mg/Kg		8270			09/20	MTT
Indeno(1,2,3-	cd)Pyrene		2.50	U	mg/Kg		8270			09/20	MTT
Dibenz(a,h)An			2.50	U	mg/Kg		8270			09/20	MTT
Benzo(g,h,i)P	erylene		2.50	U	mg/Kg	EPA	8270		09/03	09/20	MTT

See Special Instructions Above

See Sample Remarks Above

U = Undetected. Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



**SGS** Member of the SGS Group (Société Générale de Surveillance)



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4302-5 Client Sample ID :BTR-A0C08-S06

Matrix

:SOIL STI7

8mf 11.394

**5633 B STREET** ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS :DEW LINE :BARTER

Project# PWSID :UA WORK Order

Received

:70001

Report Completed Collected

:09/28/93

:08/20/93 @ 11:00 hr :08/24/93 @ 12:00 hr

Technical Director: STEPHEN Ç. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qua	l Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics Benzene	0.040			EPA 8260				
Bromobenzene	0.240		mg/Kg	EPA 8260		08/25	09/06	SGF
Bromochloromethane	0.240		mg/Kg	EPA 8260		08/25	09/06	SGI
Bromodichloromethane	0.240 0.240		mg/Kg	EPA 8260			09/06	SGM
Bromoform	0.240	U U	mg/Kg	EPA 8260			09/06	SGM
Bromomethane	0.240	Ü	mg/Kg	EPA 8260		08/25	09/06	SGM
n-Butylbenzene	0.240	Ü	mg/Kg	EPA 8260			09/06	SGM
sec-Butylbenzene	0.240	Ü	mg/Kg	EPA 8260			09/06	SGM
tert-Butylbenzne	0.240	ΰ	mg/Kg mg/Kg	EPA 8260			09/06	<b>EM</b>
- Carbon Tetrachloride	0.240	Ü	mg/Kg	EPA 8260			09/06	GM
Chlorobenzene	0.240	Ü	mg/Kg	EPA 8260			09/06	SGM
Chloroethane	0.240	Ü	mg/Kg	EPA 8260			09/06	SGM
Chloroform	0.240	ΰ	mg/Kg	EPA 8260			09/06	SGM
Chloromethane	0.240	Ü	mg/Kg	EPA 8260			09/06	SGM
2-Chlorotoluene	0.240	Ü	mg/Kg	EPA 8260			09/06	SGM
4-Chlorotoluene	0.240	Ū	mg/Kg	EPA 8260	1	08/25	09/06	SGM
Dibromochloromethane	0.240	Ū	mg/Kg	EPA 8260			09/06	SGM
12Dibromo3Chloropropane	0.240	Ū	mg/Kg	EPA 8260 EPA 8260			09/06	SGM
1,2-Dibromoethane	0.240	Ū	mg/Kg	EPA 8260			09/06	SGM
Dibromomethane	0.240	U	mg/Kg	EPA 8260			09/06	SGM
1,2-Dichlorobenzene	0.240	U	mg/Kg	EPA 8260			09/06	SGM
1,3-Dichlorobenzene	0.240	U	mg/Kg	EPA 8260		08/25		SGM
1,4-Dichlorobenzene	0.240	U	mg/Kg	EPA 8260	(	08/25	09/06	SGM
Dichlorodifluoromethane 1,1-Dichloroethane	0.240	U	mg/Kg	EPA 8260	(	8/25 8/25	09/06	SGM
1,2-Dichloroethane	0.240	U	mg/Kg	EPA 8260		8/25		SGM SGM
1,1-Dichloroethene	0.240	U	mg/Kg	EPA 8260	0	8/25	03/06 Ng/N6	SGM
cis-1,2-Dichloroethene	0.240	U	mg/Kg	EPA 8260		8/25 (		SGM
trans1,2-Dichloroethene	0.240	U	mg/Kg	EPA 8260		8/25 (		SGM
1,2-Dichloropropane	0.240	U	mg/Kg	EPA 8260		8/25		SGM
1,3-Dichloropropane	0.240 0.240		mg/Kg	EPA 8260		8/25 C		SGM
2,2-Dichloropropane	0.240		mg/Kg	EPA 8260		8/25 0		SGM
1,1-Dichloropropene	0.240		mg/Kg	EPA 8260	0:	B/25 0	9/06	SGM
Ethylbenzene	0.240		mg/Kg	EPA 8260		B/25 0		SGM
Hexachlorobutadiene			mg/Kg	EPA 8260		B/25 0		SGM
Isopropylbenzene	<b>.</b>		mg/Kg	EPA 8260		3/25 0		SCM
p-Isopropyltoluene	_	_	mg/Kg	EPA 8260		3/25 0		
	T 12 10	J	mg/Kg	EPA 8260	08	3/25 0	9/06	<b>ව</b> හැර



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

2.47 £ 13.4					
hemlab Ref.# :93.4302-5		REPORT of	ANALYSIS		
Client Sample ID :BTR-A0008-1	306			5633 B :	STREET
Matrix Sour STI2	506			ANCHORAGE, A TEL: (907) 5	K 99518
10010 2111	: ,			FAX: (907) 5	61-5301
	2.1.1			, ,-	0.0001
Methylene Chloride Napthalene	0.240	U mg/Kg	EPA 8260	00/25 00/06	
n-Propylbenzene	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGI
Styrene	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGN
	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGM
1112-Tetrachloroethane	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGM
1122-Tetrachloroethane	0.240	U mg/Kg		08/25 09/06	SGM.
Tetrachloroethene	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGK
Toluene	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGM
1,2,3-Trichlorobenzene	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGM
1,2,4-Trichlorobenzene	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGM
1,1,1-Trichloroethane	0.240	- "9/10	EPA 8260	08/25 09/06	SGM
1,1,2-Trichloroethane	0.240	9/119	EPA 8260	08/25 09/06	SGM
Trichloroethene	0.240		EPA 8260	08/25 09/06	SGM
Trichlorofluoromethane	0.240	9/119	EPA 8260	08/25 09/06	SGM
1,2,3-Trichloropropane	0.240	9/119	EPA 8260	08/25 09/06	SGM
1,2,4-Trimethylbenzene	0 240	9/119	EPA 8260	08/25 09/06	SGM
1,3,5-Trimethylbenzenethu	0.344	9/1/9	EPA 8260	08/25 09/06	SGM
vinyi Chloride		D mg/Kg	0200	08/25 09/06	SGM
p+m-Xylene	0.240	9/119	EPA 8260	08/25 09/06	SGM
o-Xylene		U mg/Kg	EPA 8260	08/25 09/06	
	0.240	U mg/Kg	EPA 8260	08/25 09/06	SGM SGM
Semivolatile Organics				00/25 05/00	SGM
Phenot	2.30	11 - 40	EPA 8270		l
is(2-Chloroethyl)ether			EPA 8270	09/03 09/20	MTT
2-Chlorophenol		U mg/Kg	EPA 8270	09/03 09/20	MTT
1,3-Dichlorobenzene		U mg/Kg	EPA 8270	09/03 09/20	
1,4-Dichlorobenzene		U mg/Kg	EPA 8270	09/03 09/20	MTT
Benzyl Alcohol		U mg/Kg	EPA 8270	09/03 09/20	MTT
1,2-Dichlorobenzene		U mg/Kg	EPA 8270	09/03 09/20	MTT
2-Methylphenol		U mg/Kg	EPA 8270	09/03 09/20	MTT
bis(2-Chloroisopropyl)e		U mg/Kg	EPA 8270	09/03 09/20	MTT
4-Methylphenol		U mg/Kg	EPA 8270	09/03 09/20	MTT
n-Nitroso-di-n-Propylam		U mg/Kg	EPA 8270	09/03 09/20	MTT ;
Hexachloroethane		J mg/Kg	EPA 8270	09/03 09/20	MTT :
Nitrobenzene		J mg/Kg	EPA 8270	09/03 09/20	MTT
Isophorone		J mg/Kg	EPA 8270	09/03 09/20	MTT .
2-Nitrophenol	2.30 t	2, 119	EPA 8270	09/03 09/20	MTT
2,4-Dimethylphenol	2.30 t		EPA 8270	09/03 09/20	MTT
Benzoic Acid	2.30 t	3/ * 19	EPA 8270	09/03 09/20	MTT
bis(2-Chloroethoxy)Meth	2.30 t		EPA 8270	09/03 09/20	MTT
2,4-Dichlorophenol	2.30 t		EPA 8270	09/03 09/20	MTT
1,2,4-Trichlorobenzene	2.30 t	J mg∕Kg	EPA 8270	09/03 09/20	MTT
Naphthalene	2.30 t		EPA 8270		MTT
4-Chloroaniline	2.30 U		EPA 8270		MTT
Hexachlorobutadiene	2.30 U		EPA 8270	09/03 09/20	MTT
4-Chloro 3 Math 1	2.30 ປ		EPA 8270	09/03 09/20	MTT
4-Chloro-3-Methylphenol	2.30 ປ		EPA 8270	09/03 09/20	MTT
2-Methylnaphthalene	2.30 U		EPA 8270		MTT
Hexachlorocyclopentadie	2.30 ບ		EPA 8270	09/03 09/20	MTT
2,4,6-Trichlorophenol	2.30 U		EPA 8270	09/03 09/20	1TT
2,4,5-Trichlorophenol	<b>2.</b> 30 U		EPA 8270	<b>09/</b> 03 09/20 j	1TT
Chloronaphthalene	2.30 U	mg/Kg	EPA 8270	09/03 09/20	1TT
	_	37 179	M 02/0	00 10	1TT



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-5 Client Sample ID :BTR-A0008-S06 Matrix :SOIL ST17 Swf 11-394

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

· BOIL	8mf 11.3.94			FAX: (907) 561-5301
2-Nitroaniline Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene 3-Nitroaniline Acenaphthene 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate 4-Chlorophenyl-Phenylet Fluorene 4-Nitroaniline 4,6-Dinitro-2-Methylphe n-Nitrosodiphenylamine 4-Bromophenyl-Phenyleth Hexachlorophenol Phenanthrene Anthracene di-n-Butylphthalate Fluoranthene Pyrene Butylbenzylphthalate 3,3-Dichlorobenzidine Benzo(a)Anthracene Chrysene bis(2-Ethylhexyl)Phthal di-n-Octylphthalate Benzo(b)Fluoranthene Benzo(a)Pyrene Indeno(1,2,3-cd)Pyrene	2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U 2.30 U	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT 09/03 09/20 MT
Benzo(a)Pyrene	2.30 U	mg/Kg	EPA 8270	09/03 09/20 MTT
Dibenz(a,h)Anthracene Benzo(g,h,i)Perylene	2.30 U	mg/Kg mg/Kg	EPA 8270 EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
benze(g,n,r)Perytene	2.30 U	mg/Kg	EPA 8270	09/03 09/20 MTT

UA = Unavailable

NA = Not AnalyzedLT = Less Than

**GT** = Greater Than



See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

		ST17	6177	5717	5717	STIT
	ICF ID	BTR- <del>A000</del> 8-S02	BTR-AOCOS-SO3	BTR- <del>A0C08</del> -S04		BTR- <del>A0609</del> -S06
	F&BI Number	1292	1294	1296	1298	1300
	Sample Type	soil	soil	soil	soil	soil
	Date Received	8/31/93	8/31/93	8/31/93	8/31/93	8/31/93
	% Dry Weight	93	33	84	85	69
)	Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93
	Leaded Gas					
	JP-4	< 50	< 150	< 50	< 60	< 70
	Lube Oil	<100	< 300	< 100	< 120	< 140
	Diesel	140R 6200	3107540	£ <del>50</del> 730	< 80	1500 1670
	Spike Level					
	Unknown Semi-volatile			407	404	115
	Pentacosane	81	82	127	101	115
	Sequence Date					
	PCB 1221					
	PCB 1232					
	PCB 1016					
	PCB 1242					
	PCB 1248					
	PCB 1254					
	PCB 1260					
	Spike Level					
	Dibutyl Chlorendate					
	Sequence Date					
	alpha-BHC					
	beta-BHC					
	gamma-BHC					
	delta-BHC					
	Heptachlor					
,	Aldrin					
	Heptachlor Epoxide					
	Endosulfan i					
	DDE					
	Dieldrin					
	Endrin					
	Endosulfan II					
	DDD					
	Endrin Aldehyde					
	DDT					
	Endosulfan Sulfate					
	Endrin Ketone					
	Methoxy Chlor					
	Chlordane					
	Dibutyl Chlorendate					
	Spike Level	#40 D 00   D4   D0	## 0 D 00   04   00	#4.0.0.00 04 00	(4400 00)04100	#4 0 0 00/04 inn
	Vol Sequence	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93
	CCI4					
	TCA	-0.00	-0.00	.0.00	.0.00	40.00
	Benzene	< 0.02	< 0.06	< 0.03	< 0.03	< 0.02
	TCE	-0.00	001 -	-0.00	-0.00	~0.00
	Toluene	< 0.02	D31.0	< 0.03	< 0.06	< 0.02
	PCE	-0.00	-0.00	0.4	-0.00	0.4
)	Ethylbenzene	< 0.02	< 0.02	0.1	< 0.06	0.4
•	Xylenes	< 0.04	< 0.04	0.3丁	<0.2	0.67
	Gasoline	<25	£87295J	£252T	< 4 interferences were present T	#65 J
	Spike level	444			444	70
	BFB	111	81	82	110	79



ANALYTICAL DATA SHEETS FOR THE FUEL TANKS (ST18) (Formerly identified as AOC9)



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

hemlab Ref.# Client Sample ID :BTR-A0009=502 Matrix

:93.4302-7

:SOIL STIB

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name Ordered By

gruf 11.3.94 :ICF KAISER ENGINEERING

:RAY MORRIS

Project Name :DEW LINE Project# :BARTER PWSID :UA

WORK Order

:70001 Report Completed :10/04/93

Collected Received

:08/20/93 @ 19:20 :08/24/93 @ 12:00 hr

Technical Director:STEPHEN, C. EDE

Released By : Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. FINAL RESULTS.

Parameter	QC Results Qual Units	Method	Allowable Ext. Anal Limits Date Date Init
Volatile Organics Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane n-Butylbenzene sec-Butylbenzene tert-Butylbenzene arbon Tetrachloride hlorobenzene Chlorotoluene Chlorotoluene 4-Chlorotoluene 1,2-Dibromoethane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,1-Dichloroethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene 1,2-Dichloropropane 1,1-Dichloropropane 1,3-Dichloropropane 1,1-Dichloropropane 1,3-Dichloropropane 1,1-Dichloropropane 1,3-Dichloropropane	0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg 0.020 U mg/Kg	EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260	08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI 08/25 09/06 SGI



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908		D.	000 6 -			
Chemlab Ref.# :93.4302	י י	KEP	ORT of	MALYSIS	5633 D C	TOCCT
					5633 B S ANCHORAGE, AK	1 MEE I ( 99518
	509-802				TEL: (907) 56	32-2343
Matrix :SOIL 6	SWF,				FAX: (907) 56	51-5301
	11.3.94					
Methylene Chloride	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SGI
Napthalene	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SGI :
n-Propylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SGI.
Styrene	0.020	Ü	mg/Kg	EPA 8260	08/25 09/06	
1112-Tetrachloroethane	0.020	Ū	mg/Kg	EPA 8260	08/25 09/06	SGI.
1122-Tetrachloroethane	0.020	Ŭ	mg/Kg			SGI .
Tetrachloroethene	0.020	Ü		EPA 8260	08/25 09/06	SGI.
Toluene	0.020	Ü	mg/Kg	EPA 8260	08/25 09/06	SGI.
1,2,3-Trichlorobenzene		_	mg/Kg	EPA 8260	08/25 09/06	SGI .
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SGI.
1 1 1 Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SGI .
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SG! .
1,1,2-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SGI .
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SGI .
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SG1 .
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25 09/06	SGI .
1,2,4-Trimethylbenzene	<b>***0</b> .128			EPA 8260	08/25 09/06	SGI .
1,3,5-Trimethylbenzene	<b>20.048</b>		mg/Kg	EPA 8260	<del>-0</del> 8/25 09/06	
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260		SGI .
p+m-Xylene	<b>52</b> 0.138	Ū	mg/Kg		08/25 09/06	SGI .
o-Xylene	<b>20.</b> 053		mg/Kg	EPA 8260	08/25 09/06	SGP 5
-	7,191	•	mg/ ng	EPA 8260	08/25 09/06	SGF 🚽
Semivolatile Organics	,1.17			ETDA 0270		<u> </u>
Phenol	0.220	U	mg/Kg	EPA 8270	00/02 00/02	7
bis(2-Chloroethyl)ether	0.220	Ü	mg/Kg	EPA 8270	09/03 09/20	77
2-Chlorophenol	0.220	Ü		EPA 8270	09/03 09/20	mii
1,3-Dichlorobenzene	0.220	Ü	mg/Kg	EPA 8270	09/03 09/20	T TTM
1,4-Dichlorobenzene	0.220	Ü	mg/Kg	EPA 8270	09/03 09/20	urr "
Benzyl Alcohol			mg/Kg	EPA 8270	09/03 09/20	mil "
1,2-Dichlorobenzene	1.00	U	mg/Kg	EPA 8270	09/03 09/20	MTT T
2-Methylphenol	0.220	Ü	mg/Kg	EPA 8270	09/03 09/20	MIT _{et}
bis(2-Chloroisopropyl)e	0.220	U	mg/Kg	EPA 8270	09/03 09/20	mil 4
4-Methylphenol		U	mg/Kg	EPA 8270	09/03 09/20	MTT T
n-Mitroso di n Decembre	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MTT T
n-Nitroso-di-n-Propylam	0.220	U	mg/Kg	EPA 8270	09/03 09/20	M.I.1.
Hexachloroethane	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MTTT 1
Nitrobenzene	0.220	U	mg/Kg	EPA 8270	09/03 09/20	Mulair T
Isophorone	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MTT T
2-Nitrophenol	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MTT
2,4-Dimethylphenol		U	mg/Kg	EPA 8270	09/03 09/20	MTT
Benzoic Acid	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MTT
bis(2-Chloroethoxy)Meth	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MTT
2,4-Dichlorophenol	0.220	U	mg/Kg	EPA 8270	09/03 09/20	MTT
1,2,4-Trichlorobenzene		U	mg/Kg	EPA 8270	09/03 09/20	MTT
Naphthalene		U	mg/Kg	EPA 8270	09/03 09/20	MTT
4-Chloroaniline		Ū	mg/Kg	EPA 8270	09/03 09/20	MTT
Hexachlorobutadiene		Ü	mg/Kg	EPA 8270	09/03 09/20	
4-Chloro-3-Methylphenol		Ŭ	mg/Kg	EPA 8270	09/03 09/20	MTT
2-Methylnaphthalene		Ü	mg/Kg	EPA 8270		MTT
Hexachlorocyclopentadie		Ü	mg/Kg	EPA 8270	09/03 09/20	MTT
2,4,6-Trichlorophenol	<b>.</b>	Ŭ	mg/Kg	EPA 8270	<b>09/</b> 03 <b>0</b> 9/20	MTT
2,4,5-Trichlorophenol		Ŭ	mg/Kg	EPA 8270	09/03 09/20	MTT =
2-Chloronaphthalene		Ü	mg/Kg	EPA 8270	09/03 09/20	
		_	mg/ ng	ELTH UZ/U	<b>09/03 0</b> 9/20	ih



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-7 Client Sample ID :BTR-AOCOS-S02
Matrix :SOIL STIB

5633 B STREET ANCHORAGE, AK 99518 TEL (907) 562-2343 FAX (907) 561-5301

η τ	. 1			1 00 (307) 261	1-5301
2-Nitroaniline Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene 3-Nitroaniline Acenaphthene 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate 4-Chlorophenyl-Phenylet Fluorene 4-Nitroaniline 4,6-Dinitro-2-Methylphe n-Nitrosodiphenylamine 4-Bromophenyl-Phenyleth Hexachlorobenzene Pentachlorophenol Phenanthrene Anthracene di-n-Butylphthalate Fluoranthene Pyrene Butylbenzylphthalate 3,3-Dichlorobenzidine Benzo(a)Anthracene Chrysene bis(2-Ethylhexyl)Phthal di-n-Octylphthalate Benzo(b)Fluoranthene Benzo(x)Fluoranthene Benzo(x)Pyrene Indeno(1,2,3-cd)Pyrene Dibenz(x,h)Anthracene Benzo(y,h,i)Perylene TOC, Soil	0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U 0.220 U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	<b>09</b> /03 09/20 <b>09</b> /03 09/20	MT MT MT MT MT MT MT MT MT MT MT MT MT M
200, 2011	1330	<b>m</b> g∕Kg	PSEP Ref Lab		



_______ See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4616-6

Client Sample ID :BTR-A009-2511-1.5

Matrix

:SOIL STIB

2511 sne 11.3 mg

WORK Order

:70612

FAX: (907) 561-5301

ANCHORAGE, AK 99518

5633 B STREET

TEL: (907) 562-2343

Client Name Ordered By Project Name

Project#

PWSID

:UA

:ICF KAISER ENGINEERING :RAY MORRIS

:DEW LINE

:BARTER

Collected

Report Completed :10/28/93 :09/03/93

@ 14:30 hrs

Received

:09/04/93

Technical Director: STEPHEN, C. EDE

@ 11:00

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. B = THIS FLAG IS USED WHEN THE ANALYTE IS FOUND IN THE ASSOCIATED

BLANK AS WELL AS IN THE SAMPLE.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.091		mg/Kg	EPA 8260		09/07	09/23	HC <b>M</b>
Bromobenzene	0.020	U	mg/Kg	EPA 8260			09/23	HCM
Bromochloromethane	0.020	Ü	mg/Kg	EPA 8260			09/23	MCM
Bromodichloromethane	0.020	ŭ	mg/Kg	EPA 8260			09/23	MCM
Bromoform	0.020	Ū	mg/Kg	EPA 8260			09/23	HCM
Bromomethane	0.020	Ü	mg/Kg	EPA 8260			09/23	HCM
n-Butylbenzene	0.020	Ū	mg/Kg	EPA 8260			09/23	
s <b>ec-</b> Butylbenzene	0.020	Ü	mg/Kg	EPA 8260			09/23	<b>E</b> M
tert-Butylbenzne	0.020	Ū	mg/Kg	EPA 8260			09/23	HCM
Carbon Tetrachloride	0.020	Ū	mg/Kg	EPA 8260			09/23	HCH
Chlorobenzene	0.020	U	mg/Kg	EPA 8260			09/23	HCM
Chloroethane	0.020	Ü	mg/Kg	EPA 8260			09/23	HCM
Chloroform	0.020	U	mg/Kg	EPA 8260			09/23	MCM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07		HCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07		HCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07		<b>MCM</b>
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
1.1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	HCM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07		MCH
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,3-Dichloropropane	0.020	ប	mg/Kg	EPA 8260		09/07		HCM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
Hexachlorobutadiene	0.020	U	mg/Kg	EPA 8260		09/07	09/23	MCM
				<b>.</b> _				



ENVIRONMENTAL LABORATORY SERVICES

200 # 193 4616 6	ST18_2511-1	REP(	DRT of ANA	LYSIS				5633 B S	
mlab Ref.# :93.4616-6	2018-2511-1	2			$\Delta$	alifen /Can.	ANCH	ORAGE, AK	99518
PUL Sample ID . DIK HOUS	-2511-1.5				(ill	alyles /(A)		TEL: (907) 56 FAX: (907) 56	52-23-3 51-5301
rix :SOIL	BFM 11.794				٠			7 (3 G) 3 C	
sopropylbenzene	0.020	U	mg/Kg	E.P.A	8260		09/07	09/23	MC
-Isopropyltoluene	0.020	Ü	mg/Kg		8260			09/23	MC
ethylene Chloride	0.020	Ŭ	mg/Kg		8260			09/23	MC
apthalene	0.020	Ü	mg/Kg		8260			09/23	MC
-Propylbenzene	0.020	บ	mg/Kg		8260			09/23	MC
Tyrene	0.020	Ü						09/23	MO
.12-Tetrachloroethane	0.020	บ	mg/Kg		8260				
22-Tetrachloroethane			mg/Kg		8260			09/23	M(
	0.020	U	mg/Kg		8260			09/23	MO
etrachloroethene	0.020	U	mg/Kg		8260	u) = 0 1		09/23	MO
luene	0.029		mg/Kg		8260 (	L)- G. 1		09/23	MO
2,3-Trichlorobenzene	0.020	Ü	mg/Kg		8260			09/23	MO
2,4-Trichlorobenzene	0.020	U	mg/Kg		8260			09/23	MO
1,1-Trichloroethane	0.020	U	mg/Kg		8260			09/23	MO
1,2-Trichloroethane	0.020	U	mg/Kg		8260			09/23	HO
ichloroethene	0.020	Ü	mg/Kg		8260			09/23	M
ichlorofluoromethane	0.020	U	mg/Kg		8260			09/23	M
2,3-Trichloropropane	0.020	U	mg/Kg		8260			09/23	M
2,4-Trimethylbenzene	0.020	U	mg/Kg		8260		-	09/23	H
3,5-Trimethylbenzene	0.020	U	mg/Kg		8260			09/23	MO
nyl Chloride	0.020	Ü	mg/Kg		8260			09/23	M
m-Xylene	0.040		mg/Kg	EPA	8260		09/07	09/23	MO
Xylene	0.023		mg∕Kg	EPA	8260		09/07	09/23	MO
emivolatile Organics				COA	0270				
nenol	0.214	บ	ma /Va		8270		00/15	10/21	,
s(2-Chloroethyl)ether	0.214		mg/Kg		8270			10/21	0
Chlorophenol	0.214	U	mg/Kg		8270			10/21	
3-Dichlorobenzene		U	mg/Kg		8270			10/21	(
	0.214	U	mg/Kg		8270			10/21	(
4-Dichlorobenzene	0.214	Ü	mg/Kg		8270			10/21	(
nzyl Alcohol	0.214	U	mg/Kg		8270			10/21	(
2-Dichlorobenzene	0.214	Ü	mg/Kg		8270			10/21	(
Methylphenol	0.214	U	mg/Kg		8270			10/21	(
s(2-Chloroisopropyl)e	0.214	U	mg/Kg		8270		-	10/21	(
Methylphenol	0.214	U	mg/Kg		8270			10/21	(
Nitroso-di-n-Propylam	0.214	U	mg/Kg		8270			10/21	(
xachloroethane	0.214	U	mg/Kg		8270			10/21	(
trobenzene	0.214	U	mg/Kg		8270			10/21	(
ophorone	0.214	U	mg/Kg		8270		09/15	10/21	(
Nitrophenol	0.214	U	mg∕Kg		8270		09/15	10/21	(
4-Dimethylphenol	0.214	U	mg/Kg		8270			10/21	(
nzoic Acid	0.214	U	mg/Kg	EPA	8270		09/15	10/21	(
s(2-Chloroethoxy)Meth	0.214	υ	mg/Kg	EPA	8270		09/15	10/21	(
4-Dichlorophenol	0.214	U	mg/Kg	EPA	8270		09/15	10/21	(
2,4-Trichlorobenzene	0.214	U	mg/Kg		8270			10/21	(
phthalene	0.214	U	mg/Kg		8270			10/21	(
Chloroaniline	0.214	U	mg/Kg		8270			10/21	Ċ
xachlorobutadiene	0.214	Ü	mg/Kg		8270			10/21	Ò
Chloro-3-Methylphenol	0.214	Ū	mg/Kg		8270			10/21	(
Methylnaphthalene	0.214	Ü	mg/Kg		8270			10/21	Ġ
xachlorocyclopentadie	0.214	Ü	mg/Kg		8270			10/21	G
4,6-Trichlorophenol	0.214	Ü	mg/Kg	EPA				10/21	G



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4616-6 ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301 BFM 11.7.94 Client Sample ID :BTR-AOC9-2511-1.5 :SOIL ST18-2511-1.5 Matrix 09/15 10/21 EPA 8270 2,4,5-Trichlorophenol 0.214 U mg/Kg GV 09/15 10/21 0.214 U mg/Kg EPA 8270 2-Chloronaphthalene GV 09/15 10/21 EPA 8270 2-Nitroaniline 0.214 U mg/Kg 09/15 10/21 GV EPA 8270 Dimethylphthalate 0.214 mg/Kg 09/15 10/21 GV EPA 8270 0.214 Acenaphthylene mg/Kg 09/15 10/21 G۷ EPA 8270 0.214 2,6-Dinitrotoluene [] mg/Kg GΥ 09/15 10/21 EPA 8270 0.214 3-Nitroaniline U mg/Kg G۷ 09/15 10/21 EPA 8270 Acenaphthene 0.214 U mg/Kg GV 09/15 10/21 EPA 8270 2,4-Dinitrophenol 0.214 U mq/Kg GV 09/15 10/21 0.214 EPA 8270 U 4-Nitrophenol mg/Kg GV 09/15 10/21 EPA 8270 0.214 U Dibenzofuran mg/Kg GV 09/15 10/21 EPA 8270 0.214 2.4-Dinitrotoluene U mg/Kg GV 09/15 10/21 EPA 8270 Diethylphthalate 0.214 U mg/Kg 09/15 10/21 GV EPA 8270 0.214 mg/Kg 4-Chlorophenyl-Phenylet GV 09/15 10/21 EPA 8270 0.214 U mg/Kg Fluorene 09/15 10/21 GV EPA 8270 0.214 U mg/Kg 4-Nitroaniline GV 09/15 10/21 EPA 8270 0.214 U mg/Kg 4,6-Dinitro-2-Methylphe GV 09/15 10/21 EPA 8270 0.214 U n-Nitrosodiphenylamine mg/Kg GV 09/15 10/21 EPA 8270 0.214 U mg/Kg 4-Bromophenyl-Phenyleth GV 09/15 10/21 EPA 8270 0.214 U mg/Kg Hexachlorobenzene GV 09/15 10/21 EPA 8270 Pentachlorophenol 0.214 U mg/Kg 09/15 10/21 **EPA** 8270 Phenanthrene 0.214 U mq/Kg 09/15 10/21 EPA 8270 0.214 Ü mg/Kg Anthracene EPA 8270 (U)- L.1 09/15 10/21 1.67 В mg/Kg di-n-Butylphthalate 09/15 10/21 GV EPA 8270 0.214 U mg/Kg Fluoranthene 09/15 10/21 GV EPA 8270 0.214 U mg/Kg Pyrene 09/15 10/21 GV **EPA** 8270 0.214 mg/Kg Butylbenzylphthalate 09/15 10/21 GV EPA 8270 0.214 U mg/Kg 3.3-Dichlorobenzidine GV 09/15 10/21 EPA 8270 0.214 mg/Kg IJ Benzo(a)Anthracene GV 09/15 10/21 EPA 8270 0.214 Ħ mg/Kg Chrysene GV 09/15 10/21 EPA 8270 bis(2-Ethylhexyl)Phthal 0.214 U mg/Kg EPA 8270(J).D.1 GV 09/15 10/21 0.214 U mg/Kg di-n-Octylphthalate GV 09/15 10/21 EPA 8270 0.214 U mg/Kg Benzo(b)Fluoranthene 09/15 10/21 GV EPA 8270 Benzo(k)Fluoranthene 0.214 U mg/Kg GV 09/15 10/21 EPA 8270 U Benzo(a)Pyrene 0.214 mg/Kg G۷ 09/15 10/21 EPA 8270 U Indeno(1,2,3-cd)Pyrene 0.214 mg/Kg EPA 8270 (-) - 1.1 GV 09/15 10/21 0.214 U mg/Kg Dibenz(a,h)Anthracene EPA 8270(J) - 1.1 09/15 10/21 GV

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

0.214

U

mg/Kg

D = Secondary dilution.

Benzo(g,h,i)Perylene

UA = Unavailable

NA = Not Analyzed

LT = Less ThanGT = Greater Than

ARMA ACTIONS COURTS CAROLIMA





See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

6633 B STREET ANCHORAGE, AK 99518

Chemlab Ref.#

:93.4616-7

Client Sample ID :BTR-AOC9-2511-1.5 SPIKE

Matrix

:SOIL STIS suf 12.595

TEL: (907) 562-2343 FAX: (907) 551-5301

Client Name

:ICF KAISER ENGINEERING

WORK Order :70612

Ordered By Project Name :RAY MORRIS

Report Completed :10/28/93

Project#

:DEW LINE :BARTER

Collected

:09/03/93 @ 14:30 hrs Received :09/04/93 @ 11:00 hrs

PWSID :UA

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. SEE QC PACKAGE FOR SPIKE CONCENTRATION AND % RSD. B = THIS FLAG

IS USED WHEN THE ANALYTE IS FOUND-IN THE ASSOCIATED BLANK AS WELL

AS IN THE SAMPLE.

Parameter 	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.483		mg/Kg	EPA 8260		09/07	09/23	MCM
Bromobenzene	0.020	U	mg/Kg	EPA 8260			09/23	MCM MCM
Bromochloromethane	0.020	U	mg/Kg	EPA 8260			09/23	MCM
Bromodichloromethane	0.020	Ū	mg/Kg	EPA 8260			09/23	MCM
Bromoform	0.020	ប	mg/Kg	EPA 8260			09/23	HCM
Bromomethane	0.020	Ū	mg/Kg	EPA 8260			09/23	MCM
n-Butylbenzene	0.020	IJ	mg/Kg	EPA 8260			09/23	MCM
sec-Butylbenzene	0.020	Ū	mg/Kg	EPA 8260			09/23	HCM
tert-Butylbenzne	0.020	Ü	mg/Kg	EPA 8260			09/23	MCM
Carbon Tetrachloride	0.020	Ü	mg/Kg	EPA 8260			09/23	HCM
Chlorobenzene	0.416		mg/Kg	EPA 8260			09/23	MCM
Chloroethane	0.020	U	mg/Kg	EPA 8260			09/23	MCM
Chloroform	0.020	U	mg/Kg	EPA 8260		09/07		MCM
Chloromethane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
2-Chlorotoluene	0.020	IJ	mg/Kg	EPA 8260		09/07		MCM
4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		09/07		HCM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260		09/07		HCH
12Dibromo3Chloropropan	0.020	Ü	mg/Kg	EPA 8260		09/07	,	HCM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		09/07		HCM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,2-Dichloroethane	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
1,1-Dichloroethene	0.336		mg/Kg	EPA 8260		09/07		HCM
cis-1,2-Dichloroethene	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
2,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		09/07		HCM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		09/07		MCH
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
			2			0 3 / 0 /	0 // 23	11011



## COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

<b>-</b>		REP	ORT of A	ANALYSIS				
Chemlab Ref.# :93.4616-7						ANCE	56 <b>33 B</b> ST HORAGE, AK 9	
Client Sample ID :BTR-A069-25	11-1.5	SPIK	E			•	TEL: (907) 562	-23-3
Matrix :SOIL STIP						F	FAX: (907) 561	-5301
12.58	5							
Hexachlorobutadiene	0.020	U	mg/Kg	EPA	8260	09/07	09/23	HCH
Isopropylbenzene	0.020	U	mg/Kg		8260		09/23	HCM
p-Isopropyltoluene	0.020	Ü	mg/Kg		8260		09/23	HCH
Methylene Chloride	0.020	Ü	mg/Kg		8260		09/23	HCM
Napthalene	0.020	Ü	mg/Kg		8260		09/23	MCM
n-Propylbenzene	0.020	Ü	mg/Kg		8260		09/23	HCM
Styrene	0.020	Ŭ	mg/Kg		8260		09/23	MCM
1112-Tetrachloroethane	0.020	Ü	mg/Kg		8260		09/23	
1122-Tetrachloroethane	0.020	Ü			8260			HCM
Tetrachloroethene	0.020	Ü	mg/Kg				09/23	HCM
Toluene		U	mg/Kg		8260		09/23	HC <b>M</b>
1,2,3-Trichlorobenzene	0.444	,,	mg/Kg		8260		09/23	MCM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg		8260		09/23	HCM
1,2,4-111chiorobenzene	0.020	U	mg/Kg		8260		09/23	MCM
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA	8260	09/07	09/23	HCM
1,1,2-Trichloroethane	0.020	U	m <b>g/Kg</b>	EPA	8260	09/07	09/23	HCM
Trichloroethene	0.411		<b>mg/K</b> g	EPA	8260		09/23	HCM
Trichlorofluoromethane	0.020	U	mg/Kg	EPA	8260		09/23	MCM
1,2,3-Trichloropropane	0.020	U	mg/Kg		8260		09/23	MCM
1,2,4-Trimethylbenzene	0.020	U	mg/Kg		8260		09/23	MC <b>M</b>
1,3,5-Trimethylbenzene	0.020	Ū	mg/Kg		8260		09/23	MCM
Vinyl Chloride	0.020	Ū	mg/Kg		8260		09/23	MCM
p+m-Xylene	0.048	_	mg/Kg		8260		09/23	Man
o-Xylene	0.023		mg/Kg		8260			
•	1011		mg/ ng	LFA	0200	09/07	09/23	
Semivolatile Organics	,011			בים א	8270			
Phenol	1.33		m= /1/a			00.45		
bis(2-Chloroethyl)ether	0.210	U	mg/Kg		8270		10/21	G <b>V</b>
2-Chlorophenol		U	mg/Kg		8270		10/21	G <b>V</b>
1,3-Dichlorobenzene	1.28		mg/Kg		8270		10/21	G <b>V</b>
1.4 Dishlambara	0.210	U	<b>mg/K</b> g		8270		10/21	GΥ
1,4-Dichlorobenzene	1.26		mg/Kg		8270	09/15		G <b>V</b>
Benzyl Alcohol	0.210	U	m <b>g/K</b> g	EPA	8270	09/15	10/21	GΥ
1,2-Dichlorobenzene	0.210	U	mg/Kg	EPA	8270	09/15	10/21	GV
2-Methylphenol	0.210	Ü	mg/Kg	EPA	8270	09/15	10/21	GΥ
<pre>bis(2-Chloroisopropyl)e</pre>	0.210	U	mg/Kg	EPA	8270	09/15		<b>GV</b>
4-Methylphenol	0.210	U	mg/Kg		8270	09/15		<b>GV</b>
n-Nitroso-di-n-Propylam	1.36		mg/Kg	EPA	8270	09/15		G <b>V</b>
Hexachloroethane	0.210	U	mg/Kg	EPA		09/15		GV
Nitrobenzene	0.210	U	mg/Kg	EPA		09/15		G <b>V</b>
Isophorone	0.210	Ū	mg/Kg		8270	09/15		G <b>V</b>
2-Nitrophenol	0.210	Ū	mg/Kg		8270	09/15		G <b>V</b>
2,4-Dimethylphenol	0.210	Ü	mg/Kg		8270	09/15		G <b>V</b>
Benzoic Acid	0.210	Ü	mg/Kg	EPA		09/15		
bis(2-Chloroethoxy)Meth	0.210	Ū		EPA		• -		G <b>V</b>
2,4-Dichlorophenol	0.210	Ü	mg/Kg			09/15		G <b>V</b>
1,2,4-Trichlorobenzene		U	mg/Kg	EPA		09/15		G <b>V</b>
Naphthalene	1.59		mg/Kg	EPA		09/15		G <b>V</b>
4-Chloroaniline	0.210	Ü	mg/Kg	EPA		09/15		<b>GV</b>
	0.210	U	mg/Kg	EPA		09/15		<b>GV</b>
Hexachlorobutadiene	0.210	U	mg/Kg	EPA		09/15	-	G♥
4-Chloro-3-Methylphenol	1.36		mg/Kg	EPA		09/15		G <b>V</b>
2-Methylnaphthalene	0.210	U	mg/Kg	EPA		09/15		GA
Hexachlorocyclopentadie	0.210	U	mg/Kg	EPA :	B270	09/15	10/21	





ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

REPORT of ANALYSIS

5533 B STREET ANCHORAGE, AK 99518

Client Sample ID :BTR-A069-2S11-1.5 SPIKE

:93.4616-7

TEL: (907) 562-2343 FAX: (907) 561-5301

SOIL STIBLE Matrix

12.5.95 2,4,6-Trichlorophenol 0.210 U mq/Kq EPA 8270 2,4,5-Trichlorophenol EPA 8270 0.210 U mg/Kg 2-Chloronaphthalene 0.210 U mg/Kg EPA 8270 2-Nitroaniline 0.210 U mg/Kg EPA 8270 Dimethylphthalate 0.210 H mg/Kg EPA 8270 Acenaphthylene 0.210 IJ mg/Kg EPA 8270 2,6-Dinitrotoluene 0.210 U mg/Kg EPA 8270 3-Nitroaniline 0.210 11 mq/Kq EPA 8270 Acenaphthene 1.52 mg/Kg **EPA** 8270 2,4-Dinitrophenol 0.210 EPA 8270 mg/Kg 4-Nitrophenol 1.41 mg/Kg EPA 8270 Dibenzofuran 0.210 U **EPA** 8270 mg/Kg 2,4-Dinitrotoluene 1.64 mg/Kg EPA 8270 Diethylphthalate 0.210 H mg/Kg EPA 8270 4-Chlorophenyl-Phenylet 0.210 U mg/Kg EPA 8270 Fluorene 0.210 H mg/Kg EPA 8270 4-Nitroaniline 0.210 Ü mq/Kq EPA 8270 4,6-Dinitro-2-Methylphe 0.210 Ü mq/Kq EPA 8270 n-Nitrosodiphenylamine 0.210 U ma/Ka EPA 8270 4-Bromophenyl-Phenyleth 0.210 Ü mg/Kg EPA 8270 Hexachlorobenzene 0.210 U mg/Kg EPA 8270 Pentachlorophenol 1.55 mg/Kg **EPA** 8270 Phenanthrene 0.210 U mg/Kg EPA 8270 Anthracene 0.210 U mg/Kg EPA 8270 di-n-Butylphthalate 4.02 В mg/Kg **EPA** 8270 Fluoranthene 0.210 U mg/Kg EPA 8270 Pyrene 1.39 mg/Kg **EPA** 8270 Butylbenzylphthalate 0.210 11 mg/Kg EPA 8270 3,3-Dichlorobenzidine 0.210 H mg/Kg EPA 8270

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EPA 8270

**EPA** 8270

EPA 8270

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09/15 10/21 GV 09/15 10/21  $\mathbf{G}\mathbf{V}$ 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 **GV** 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 **GV** 09/15 10/21 **GV** 09/15 10/21 **GV** 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 **GV** 09/15 10/21 GV 09/15 10/21 **GV** 09/15 10/21 **GV** 09/15 10/21 GV 09/15 10/21 **GV** 09/15 10/21 **GV** 09/15 10/21 **GV** 09/15 10/21 **GV** 09/15 10/21 **GV** 09/15 10/21 GV 09/15 10/21 **GV** 09/15 10/21 GV 09/15 10/21 **GV** 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 GV 09/15 10/21 **GV** 09/15 10/21 **GV** 

See Special Instructions Above See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

Benzo(a)Anthracene

di-n-Octylphthalate

Benzo(b)Fluoranthene

Benzo(k)Fluoranthene

Indeno(1,2,3-cd)Pyrene

Dibenz(a,h)Anthracene

Benzo(g,h,i)Perylene

Benzo(a)Pyrene

bis(2-Ethylhexyl)Phthal

Chrysene

UA = Unavailable

09/15 10/21

09/15 10/21

09/15 10/21

GV

**GV** 

**GV** 

NA = Not Analyzed

LT = Less Than GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref. # :93.4616-8

Client Sample ID :BTR-A009-2511-1.5 SPIKE DUPLICATE Matrix :SOIL 508

:UA

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

Project Name

Project#

PWSID

12.5.95

:ICF KAISER ENGINEERING :RAY MORRIS

:DEW LINE :BARTER

WORK Order Report Completed :10/28/93 Collected

:70612

:09/03/93

@ 14:30 hrs :09/04/93 @ 11:00 hrs

Received

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

SEE QC PACKAGE FOR SPIKE CONCENTRATION AND % RSD.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.495		mg/Kg	EPA 8260		09/07	09/23	MC <b>M</b>
Bromobenzene	0.020	U	mg/Kg	EPA 8260			09/23	MCM
Bromochloromethane	0.020	Ü	mg/Kg	EPA 8260			09/23	MCM
Bromodichloromethane	0.020	Ū	mg/Kg	EPA 8260			09/23	HCM
Bromoform	0.020	Ü	mg/Kg	EPA 8260			09/23	HCM
Bromomethane	0.020	Ü	mg/Kg	EPA 8260			09/23	HCH
n-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260			09/23	HEM
sec-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260			09/23	
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260			09/23	les Cle
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260		09/07		MCM
Chlorobenzene	0.420		mg/Kg	EPA 8260		09/07		HCM
Chloroethane	0.020	U	mg/Kg	EPA 8260		09/07		HCH
Chloroform	0.020	Ū	mg/Kg	EPA 8260		09/07		HCM
Chloromethane	0.020	Ü	mg/Kg	EPA 8260		09/07		
2-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
4-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
Dibromochloromethane	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
12Dibromo3Chloropropane	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
1,2-Dibromoethane	0.020	ŭ	mg/Kg	EPA 8260				HCH
Dibromomethane	0.020	Ü	mg/Kg	EPA 8260		09/07 09/07		HCM
1,2-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM HCM
1,3-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
1,4-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		09/07		HCM
Dichlorodifluoromethane	0.020	Ü	mg/Kg	EPA 8260		09/07		HCH
1,1-Dichloroethane	0.020	Ū	mg/Kg	EPA 8260		09/07		HCH
1,2-Dichloroethane	0.020	Ū	mg/Kg	EPA 8260		09/07		HCH
1,1-Dichloroethene	0.358	_	mg/Kg	EPA 8260		09/07		HCH
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07		HCH
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		09/07		MCM
1,2-Dichloropropane	0.020		mg/Kg	EPA 8260		09/07		HCM
1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		09/07		HCM
2,2-Dichloropropane	0.020		ng/Kg	EPA 8260		09/07		HCM
1,1-Dichloropropene	0.020		mg/Kg	EPA 8260		09/07		HCM
Ethylbenzene	0.020		mg/Kg	EPA 8260		09/07		HCM
Hexachlorobutadiene	0.020		mg/Kg	EPA 8260		09/07		HCM
Isopropylbenzene	0.020		mg/Kg	EPA 8260		09/07		
- <del>-</del>		-	ביי ובייי	<u> </u>		0 37 0 1	0 3/ 23	

ENVIRONMENTAL LABORATORY SERVICES

S %DE 1908		REPO	RT of ANA	LYSIS	
Chemlab Ref.# :93.4616-8 Client Sample ID :BTR-A0C9-2S1 Matrix :SOIL 508 12.545	1-1.5		E DUPLICA		5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301
p-Isopropyltoluene Methylene Chloride Napthalene n-Propylbenzene Styrene 1112-Tetrachloroethane 1122-Tetrachloroethane Tetrachloroethene Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichloroethene Trichlorofluoromethane 1,2,3-Trichloropropane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Vinyl Chloride	0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020 0.020	ממממם ממממ ממממממ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260	09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM 09/07 09/23 HCM
p+m-Xylene o-Xylene	0.048 0.025	J	mg/Kg mg/Kg	EPA 8260 EPA 8260	09/07 09/23 HCH 09/07 09/23 HCH 09/07 09/23 HCH



See Special Instructions Above

See Sample Remarks Above

- Undetected, Reported value is the practical quantification limit.  $\overline{D}$  = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than

GT = Greater Than



**§ SGS** Member of the SGS Group (Société Générale de Surveillance)



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-6

Client Sample ID :BTR-A0009-SD01

Matrix

:SOIL ST18 SWE 11.4.94

Client Name

Ordered By Project Name

:DEW LINE

Project# PWSID :UA

:ICF KAISER ENGINEERING

:RAY MORRIS

:BARTER

WORK Order :70001

:10/04/93 Report Completed Collected :08/20/93

Received :08/24/93 @ 12:00

5633 B STREET

TEL: (907) 562-2343

FAX (907) 561-5301

@ 15:35 hr

ANCHORAGE, AK 99518

Technical Director: STEPHEN C. EDE

Released By:

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. FINAL RESULTS.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini ⁻
Volatile Organics				EPA 8260	. 60			
Benzene	0.020	U	mg/Kg	EPA 8260			09/06	SGI
Bromobenzene	0.020	Ŭ	mg/Kg	EPA 8260			09/06	
Bromochloromethane	0.020	Ü	mg/Kg	EPA 8260			09/06	SGI
Bromodichloromethane	0.020	U	mg/Kg	EPA 8260			09/06	SGI
Bromoform Bromomethane	0.020	U	mg/Kg	EPA 8260			09/06	SGI
	0.020	U	mg/Kg	EPA 8260			09/06	SGI
n-Butylbenzene sec-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260			09/06	SG1
tert-Butylbenzne	0.020	Ü	mg/Kg	EPA 8260			09/06	GI
Carbon Tetrachloride	0.020	Ü	mg/Kg	EPA 8260			09/06	15
Chlorobenzene	0.020	U	mg/Kg	EPA 8260			09/06	SGI
Chloroethane	0.020	U	mg/Kg	EPA 8260			09/06	SGF
Chloroform	0.020	U	mg/Kg	EPA 8260			09/06	SGI
Chloromethane	0.020 0.020	U U	mg/Kg	EPA 8260			09/06	SGL
2-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260			09/06	SGF
4-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260			09/06	SGM
Dibromochloromethane	0.020	Ü	mg/Kg	EPA 8260			09/06	SGM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260			09/06	SGM
1,2-Dibromoethane	0.020	U	mg/Kg mg/Kg	EPA 8260			09/06	SGE
Dibromomethane	0.020	Ü	mg/Kg	EPA 8260 EPA 8260		08/25		SGM
1,2-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		08/25 08/25		SGM
1,3-Dichlorobenzene	0.020	บ	mg/Kg	EPA 8260		08/25		SGM SGM
1,4-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGM
Dichlorodifluoromethane	0.020	Ü	mg/Kg	EPA 8260		08/25	•	SGM
1,1-Dichloroethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloroethane	0.020	Ŭ	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloroethene	0.020	Ŭ	mg/Kg	EPA 8260		08/25		SGM
cis-1,2-Dichloroethene	0.020	Ü	mg/Kg	EPA 8260		08/25	-	SGM
trans1,2-Dichloroethene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloropropane	0.020	บั	mg/Kg	EPA 8260		08/25		SGM
1,3-Dichloropropane	0.020	บั	mg/Kg	EPA 8260		08/25		SGM
2,2-Dichloropropane	0.020	Ū	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloropropene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGM
Ethylbenzene	0.020		mg/Kg	EPA 8260		08/25		SGM
Hexachlorobutadiene	0.020		mg/Kg	EPA 8260		08/25		SGM
Isopropylbenzene	0.020		mg/Kg	EPA 8260		08/25		M
p-Isopropyltoluene	0.020		mg/Kg	EPA 8260		08/25	- 3	M
								-



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

hemlab Ref.# :93.4302-		EPORT of A	NALYSIS	
Client Sample ID :BTR-AOC	<del>99</del> -SD01			5633 B STREET ANCHORAGE, AK 99518
110 CT 1X 150 LL 21	(%			IEL: (907) 562-2343
Methylene Chloride	8mf 11.4.94			FAX: (907) 561-5301
Napthalene		U mg/Kg	EPA 8260	09/25 00/06
n-Propylbenzene		U mg/Kg	EPA 8260	08/25 09/06 SGI 08/25 09/06 SGI
Styrene		U mg/Kg U ma/ka	EPA 8260	08/25 09/06 SGI 08/25 09/06 SGI
1112-Tetrachloroethane	<b>.</b>	3/ 119	EPA 8260	08/25 09/06 SG
1122-Tetrachloroethane		U mg/Kg U mg/Kg	EPA 8260	08/25 09/06 SGI
Tetrachloroethene Toluene		J mg/Kg	EPA 8260 EPA 8260	08/25 09/06 SG
		J mg/Kg	EPA 8260	08/25 09/06 SGI
1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene		J mg/Kg	EPA 8260	08/25 09/06 SGt
1,1,1-Trichloroethane	0.020 t	9/ 1.19	EPA 8260	08/25 09/06 SGI 08/25 09/06 SGI
1,1,2-Trichloroethane	0.020 t 0.020 t		EPA 8260	00 105 00 15
TTlChLoroethene	0.020	9/119	EPA 8260	08/25 09/06 SGN 08/25 09/06 SGN
Trichlorofluoromethane	0.020 U		EPA 8260	08/25 09/06 SGM
1,2,3-Trichloropropane	0.020 U	mg/Kg	EPA 8260 EPA 8260	08/25 09/06 SGM
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	0.020 U	mg/Kg	EPA 8260	08/25 09/06 SGM
Vinyl Chloride	0.020 U	9/ NG	EPA 8260	08/25 09/06 · .SGM
P+m-Xylene	0.020 ປ 0.020 ປ	g/ Ng	EPA 8260	<del>0</del> 8/25 09/06 SGM 08/25 09/06 SGM
o-Xylene	บ.020 บ 0.020 บ	g/ 1./g	EPA 8260	08/25 09/06 SGM 08/25 09/06 SGM
Co	0.020 0	mg/Kg	EPA 8260	08/25 09/06 SGM
Semivolatile Organics Phenol			EDA 0076	, , ,
	0.210 U	mg/Kg	EPA 8270 EPA 8270	00 (00 00 00
bis(2-Chloroethyl)ether 2-Chlorophenol	0.210 U		EPA 8270	09/03 09/20 MTT
1,3-Dichlorobenzene	0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
1,4-Dichlorobenzene	0.210 ປ 0.210 ປ	mg/Kg	EPA 8270	00 100
Benzyl Alcohol	1.00 U	mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
1,2-Dichlorobenzene	0.210 U	mg/Kg mg/Kg	EPA 8270	09/03 09/20 MTT
2-Methylphenol	0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT
bis(2-Chloroisopropyl)e 4-Methylphenol	0.210 U	mg/Kg	EPA 8270 EPA 8270	09/03 09/20 MTT
n-Nitroso-di-n-Propylam	0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT
Hexachloroethane	0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
Nitrobenzene	0.210 ປ 0.210 ປ	mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
Isophorone	0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT
2-Nitrophenol	0.210 U	mg/Kg mg/Kg	EPA 8270	09/03 09/20 MTT
2,4-Dimethylphenol Benzoic Acid	0.210 ប	mg/Kg	EPA 8270 EPA 8270	09/03 09/20 MTT
bis(2-Chloroethoxy)Meth	0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT
2,4-Dichlorophenol	0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT
1,2,4-Trichlorobenzene	0.210 U 0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
Naphthalene	0.210 ປ 0.210 ປ	mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
4-Chloroaniline	0.210 U	<b>mg/</b> Kg <b>mg/</b> Kg	EPA 8270	09/03 09/20 MTT
Hexachlorobutadiene	0.210 U	mg/Kg	EPA 8270 EPA 8270	09/03 09/20 MTT
4-Chloro-3-Methylphenol 2-Methylnaphthalene	0.210 ປ	mg/Kg	EPA 8270	09/03 09/20 MTT
Hexachlorocyclopentadie	0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT
2,4,6-Trichlorophenol	0.210 ປ 0.210 ປ	mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
2,4,5-Trichlorophenol	0.210 U 0.210 U	mg/Kg	EPA 8270	09/03 09/20 MTT 09/03 09/20 MTT
2-Chloronaphthalene	0.210 U	mg/Kg mg/Kg	EPA 8270	09/03 09/20 MTT
		av rvg	EPA 8270	09/03 09/20 MTT



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-6 Client Sample ID :BTR-AOCOS-SD01
Matrix :SOIL STO

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

	8MH 019				FAX: (907) 561-5301
2-Nitroaniline	0.210	U	m ~ /!!-		
Dimethylphthalate	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MT
Acenaphthylene	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MT
2,6-Dinitrotoluene	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MT
3-Nitroaniline	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MT
Acenaphthene	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MT
2,4-Dinitrophenol	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MT
4-Nitrophenol	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MT
Dibenzofuran	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MT
2,4-Dinitrotoluene	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MT
Diethylphthalate	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MT
4-Chlorophenyl-Phenylet	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MT
Fluorene	0.210		mg/Kg	EPA 8270	09/03 09/20 MT
4-Nitroaniline	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MT
4,6-Dinitro-2-Methylphe		U	mg/Kg	EPA 8270	09/03 09/20 MTT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MTT
4-Bromophenyl-Phenyleth	0.210	ប	mg/Kg	EPA 8270	09/03 09/20 MT1
Hexachlorobenzene	0.210	Ü	mg/Kg	EPA 8270	<del>-0</del> 9/03 09/20 MTT
Pentachlorophenol	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MTT
Phenanthrene	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MTI
Anthracene	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MTT
di-n-Butylphthalate	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MTT
Fluoranthene	0.210 0.210	U	mg/Kg	EPA 8270	
Pyrene	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 09/03 09/20 TI
Butylbenzylphthalate	0.210	U U	mg/Kg	EPA 8270	09/03 09/20 MTT
3,3-Dichlorobenzidine	0.210	_	mg/Kg	EPA 8270	09/03 09/20 MTT
Benzo(a)Anthracene	0.210	U U	mg/Kg	EPA 8270	09/03 09/20 MTT
Chrysene	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MTT
bis(2-Ethylhexyl)Phthal	1.00	Ü	mg/Kg	EPA 8270	09/03 09/20 MTT
di-n-Octylphthalate	0.210	Ü	mg/Kg	EPA 8270	09/03 09/20 MTT
Benzo(b)Fluoranthene	<b>.</b>	Ü	mg/Kg	EPA 8270	09/03 09/20 MTT
Benzo(k)Fluoranthene		U	mg/Kg	EPA 8270	09/03 09/20 MTT
Benzo(a)Pyrene		ប	mg/Kg	EPA 8270	09/03 09/20 MTT
Indeno(1,2,3-cd)Pyrene		Ü	mg/Kg	EPA 8270	09/03 09/20 MTT
Dibenz(a,h)Anthracene		Ü	mg/Kg	EPA 8270	09/03 09/20 MTT
Benzo(g,h,i)Perylene		Ü	mg/Kg	EPA 8270	09/03 09/20 MTT
	0.210	U	mg/Kg	EPA 8270	09/03 09/20 MTT
TOC, Soil	3400		mg/Kg	PSEP Ref Lab	

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



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See Special Instructions Above

See Sample Remarks Above



REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX (907) 561-5301

emlab Ref.# :93.4302-8 ijent Sample ID :BTR-AOCO9-SW01 patrix

client Name :ICF KAISER ENGINEERING

ordered By Project Name

:DEW LINE Project# :BARTER PWSID

:RAY MORRIS

:UA

WORK Order :70001

:09/28/93 Report Completed Collected :08/20/93 @ 15:08 hrs :08/24/93 @ 12:00 hrs

Received Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	DQ LcuO	Unite	Wathad	Allowable Limits	Ext. Date	Anal Date	Init
1 GIOWECEI		Quai		Method				
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
Bromobenzene	0.0010		mg/L	EPA 8260			09/02	KWM
Bromochloromethane	0.0010		mg/L	EPA 8260			09/02	KWM
Bromodichloromethane	0.0010		mg/L	EPA 8260			09/02	KWM
Bromoform	0.0010		mg/L	EPA 8260			09/02	KWM
Bromomethane	0.0010		mg/L	EPA 8260			09/02	KWM
n-Butylbenzene	0.0010		mg/L	EPA 8260			09/02	KWM
sec-Butylbenzene	0.0010		mg/L	EPA 8260			09/02	KWM
tert-Butylbenzne	0.0010		mg/L	EPA 8260			09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chloroform	0.0010		mg/L	EPA 8260			09/02	KWM
Chloromethane	0.0010		mg/L	EPA 8260			09/02	KWM
2-Chlorotoluene	0.0010		mg/L	EPA 8260			09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260			09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260			09/02	KWM
12Dibromo3Chloropropane	0.0010		mg/L	EPA 8260			09/02	KWM
1.2-Dibromoethane	0.0010		mg/L	EPA 8260			09/02	KWM
Dibromomethane	0.0010		mg/L	EPA 8260			09/02	KWM
1,2-Dichlorobenzene	0.0010		mg/L	EPA 8260			09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
Dichlorodifluoromethane	0.0010		mg/L	EPA 8260			09/02	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260	\ 1		09/02	KWM
1,2-Dichloroethane	0.0030		mg/L	EPA 8260 / W	)-6.1		09/02	KWM
1,1-Dichloroethene	0.0010		mg/L	EPA 8260 '			09/02	KWM
cis-1,2-Dichloroethene	0.0010		mg/L	EPA 8260			09/02	KWM
trans1,2-Dichloroethene	0.0010		mg/L	EPA 8260			09/02	KWM
1,2-Dichloropropane	0.0010		mg/L	EPA 8260			09/02	KWM
1,3-Dichloropropane	0.0010		mg/L	EPA 8260			09/02	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260			09/02	KWM
1,1-Dichloropropene	0.0010		mg/L	EPA 8260			09/02	KWM
Ethylbenzene	0.0010		mg/L	EPA 8260	•		09/02	KWM
Hexachlorobutadiene	0.0010		mg/L	EPA 8260			09/02	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM



ENVIRONMENTAL LABORATORY SERVICES

SINC E 1908		פרוס	ORT of AN	NT VOTO	
Chemlab Ref.# :93.4302-	A	11111	OWI OI WIA	ML1515	5633 B STREET
Client Sample ID :BTR-AOCO					ANCHORAGE, <b>AK 99</b> 518 TEL: (90 <b>7) 562-2343</b>
Matrix :WATER ST	18 18				FAX: (907) 561-5301
MATER ST	8 W. 4.94				<b>(</b> ==- <b>, 2-</b>
Modhalass Chlastia	11.4.44		_		00 (00 00 (00
Methylene Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02 KW
Napthalene	0.0010	U	mg/L	EPA 8260	09/02 09/02 KW
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02 KW
Styrene	0.0010	U	mg/L	EPA 8260	09/02 09/02 KW
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02 KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02 KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260	09/02 09/02 KWI
Toluene	0.0010	U	mg/L	EPA 8260	09/02 09/02 KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02 KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02 KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02 KWI
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02 09/02 KWI
Trichloroethene	0.0010	Ū	mg/L	EPA 8260	09/02 09/02 KW
Trichlorofluoromethane	0.0010	Ŭ	mg/L	EPA 8260	09/02 09/02 KWI
1,2,3-Trichloropropane	0.0010	Ü	mg/L	EPA 8260	09/02 09/02 KWI
1,2,4-Trimethylbenzene	0.0010	Ü			09/02 09/02 KWI
1,3,5-Trimethylbenzene	0.0010	Ü	mg/L	EPA 8260	709/02 09/02 KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02 KWI
p+m-Xylene	0.0010	Ü	mg/L	EPA 8260	
o-Xylene	0.0010	บ	mg/L	EPA 8260	
O-xytelle	0.0010	U	mg/L	EPA 8260	09/02 09/02 KWF
Semivolatile Organics				FD1 0070	
Phenol	0.010		/5	EPA 8270	08/28 09/04 GV
	0.010	U	mg/L	EPA 8270	· · · · · · · · · · · · · · · · · ·
bis(2-Chloroethyl)ether	0.010	ប	mg/L	EPA 8270	08/28 09/04 GV
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
1,4-Dichlorobenzene	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
Benzyl Alcohol	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
1,2-Dichlorobenzene	0.010	U	mg/L .	EPA 8270	08/28 09/04 GV
2-Methylphenol	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
bis(2-Chloroisopropyl)e	0.010	Ü	mg/L	EPA 8270	08/28 09/04 GV
4-Methylphenol	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
n-Nitroso-di-n-Propylam	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
Hexachloroethane	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
Nitrobenzene	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
Isophorone	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
2-Nitrophenol	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
2,4-Dimethylphenol	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/28 09/04 GV
bis(2-Chloroethoxy)Meth	0.010	Ū	mg/L	EPA 8270	08/28 09/04 GV
2,4-Dichlorophenol	0.010	Ū	mg/L	EPA 8270	08/28 09/04 GV
1,2,4-Trichlorobenzene	0.010	Ü	mg/L	EPA 8270	08/28 09/04 GV
Naphthalene	0.010	Ū	mg/L	EPA 8270	08/28 09/04 GV
4-Chloroaniline	0.010	Ŭ	mg/L	EPA 8270	08/28 09/04 GV
Hexachlorobutadiene	0.010	Ü	mg/L	EPA 8270	08/28 09/04 GV
4-Chloro-3-Methylphenol	0.010	Ŭ	mg/L	EPA 8270	08/28 09/04 GV
2-Methylnaphthalene	0.010	Ü	mg/L	EPA 8270	08/28 09/04 GV
Hexachlorocyclopentadie	0.010	Ü	mg/L	EPA 8270	. 08/28 09/04 GV
2,4,6-Trichlorophenol	0.010	Ü	mg/L	EPA 8270	08/28 09/04 GV
2,4,5-Trichlorophenol	0.010	Ü	mg/L	EPA 8270	08/28 09/04 <b>SV</b>
2-Chloronaphthalene	0.010	Ü	-		08/28 09/04 GV
~ ouroroughtenarenc	0.010	J	mg/L	EPA 8270	00/20 03/0400



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908	REPORT	of A	NALYSIS	5633 B STREET	
Chemlab Ref.# :93.4302-8	•			ANCHORAGE, AK 99518	
Client Sample ID :BTR-AOCO9				TEL: (907) 562 <b>-2343</b> FAX: (907) 561- <b>530</b> 1	
Matrix :WATER ST	18 BFM 11.8.94 3 E			1 AA. (507) 551-500	
2-Nitroaniline	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Dimethylphthalate	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Acenaphthylene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
2,6-Dinitrotoluene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
3-Nitroaniline	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Acenaphthene	0.010 U	mg/L	EPA 8270	08/28 09/04 G 08/28 09/04 G	
2,4-Dinitrophenol	0.010 U	mg/L	EPA 8270		
4-Nitrophenol	0.010 U	mg/L	EPA 8270	08/28 09/04 G' 08/28 09/04 G'	
Dibenzofuran	0.010 U	mg/L	EPA 8270	,	
2,4-Dinitrotoluene	0.010 U	mg/L	EPA 8270		
Diethylphthalate	0.010 U	mg/L	EPA 8270	08/28 09/04 <b>G</b> Y	
4-Chlorophenyl-Phenylet	0.010 U	mg/L	EPA 8270	08/28 09/04 <b>G</b>	
Fluorene	0.010 U	mg/L	EPA 8270	08/28 09/04 G'	
4-Nitroaniline	0.010 U	mg/L	EPA 8270	08/28 09/04 G' 08/28 09/04 G'	
4,6-Dinitro-2-Methylphe	0.010 U	mg/L	EPA 8270	<b>***</b>	
n-Nitrosodiphenylamine	0.010 U	mg/L	EPA 8270		
4-Bromophenyl-Phenyleth	0.010 U	mg/L	EPA 8270	08/28 09/04 G ¹ 08/28 09/04 G ¹	
Hexachlorobenzene	0.010 U	mg/L	EPA 8270	08/28 09/04 G ¹	
Pentachlorophenol	0.010 U	mg/L	EPA 8270 EPA 8270	08/28 09/04 G	
Phenanthrene	0.010 U	mg/L	EPA 8270	08/28 09/04 G ¹	
Anthracene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
di-n-Butylphthalate	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Fluoranthene	0.010 U 0.010 U	mg/L	EPA 8270	08/28 09/04 GV	
Pyrene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Butylbenzylphthalate	0.010 U	mg/L mg/L	EPA 8270	08/28 09/04 G	
3,3-Dichlorobenzidine	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Benzo(a)Anthracene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Chrysene bis(2-Ethylhexyl)Phthal	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
di-n-Octylphthalate	0.010 U	mg/L	EPA 8270	08/28 709/04 G	•
Benzo(b)Fluoranthene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Benzo(k)Fluoranthene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	•
Benzo(a)Pyrene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	•
Indeno(1,2,3-cd)Pyrene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	•
Dibenz(a,h)Anthracene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	
Benzo(g,h,i)Perylene	0.010 U	mg/L	EPA 8270	08/28 09/04 G	•
TOC, Nonpurgable			EPA 9060	n/a	
TOC Range	34.3-39.4	mg/L	EPA 9060	09/02 CM	ï
TOC Concentration	36.3	mg/L	EPA 9060	09/02 CM	1
Residue, Non-Filterable	8 J A	mg/L	EPA 160.2	08/30 08/31 GP	
Residue, Filterable (TDS)	711(J)A		EPA 160.1	500 08/30 08/31 RJ	î
				aguarded broad	
		•	duga 124/94	Compiled by Auf	
		BIL	0-4- 1 W1179	1-7	

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



**§ SGS** Member of the SGS Group (Société Générale de Surveillance)

ICF ID	⊊୮ ( <del>ያ</del> BTR- <del>A0009</del> -S01	JT18 BTR- <del>A0009</del> -S02	ST(8 BTR- <del>A0009</del> :S03	ST18 BTR- <del>A0009</del> -S04	ST 18 BTR- <del>A0009</del> -S05
F&BI Number	1302	1304	1306	1310	1312
Sample Type	soil	soil	soil	soil	soil
Date Received	8/31/93	8/31/93	8/31/93	8/31/93	8/31/93
	96	93	93	85	94
% Dry Weight	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93
Sequence Date Leaded Gas	#0-00 31 33	#0-00 31 33	#0-00/31/93	#0-00/51/55	#0-00 01 00
	450	< F.O.	< 50	< 50	< 50
JP-4	< 50	< 50		< 100	< 100
Lube Oil	< 100	< 100	< 100		< 80
Diesel	< 80	< 70	<90	< 100	< 00
Spike Level					
Unknown Semi-volatile	405	100	404	447	01
Pentacosane	125	120	101	117	91
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan i					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93
CCI4					
TCA					
Benzene	0.8340.02	< 0.02	< 0.02	< 0.02	< 0.02
TCE			<del>-</del>	<del>-</del>	<del>-</del>
Toluene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
PCE			,	<b>-</b>	· <del></del>
Ethylbenzene	0.0320.02	< 0.02	< 0.02	< 0.02	< 0.02
Xylenes	0.06<0.04	2,9540.04	< 0.04	< 0.04	< 0.04
Gasoline	<2 5	<25	<2 J	<25	<2J
Spike level	~~ 0	~~~	~~ 0	720	720
BFB	110	106	108	110	110
<i>(</i>	110	100	100	110	110

11.11 at

ICF ID	シで <i>含</i> BTR- <del>A0C09</del> -S06	ST(8 BTR- <del>A0609</del> -S07	ଣ <b>ୀ</b> 8 BTR- <del>A009</del> -S08	ST18 BTR- <del>A0009</del> -S08	ST18 BTR- <del>A0009</del> -S09
F&BI Number	1314	1322	1316	1316 dup	1318
Sample Type	soil	soil	soil	soil	soil
Date Received	8/31/93	8/31/93	8/31/93	8/31/93	8/31/93
% Dry Weight	94	90	67	84	96
Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93	04	#6-08/31/93
Leaded Gas	,, 0 00,0 1,00	110000100	# G GO/G 1/GG		// 0 00/0 1/00
JP-4	< 50	< 50	< 80		< 50
Lube Oil	190	< 110	< 150		< 100
Diesel	<b>&lt;</b> 50	< 70	< 100		< 60
Spike Level	•				
Unknown Semi-volatile					
Pentacosane	107	100	112		103
Sequence Date					#6-08/31/93
PCB 1221					< 0.1
PCB 1232					< 0.1
PCB 1016					< 0.1
PCB 1242					< 0.1
PCB 1248					< 0.1
PCB 1254					< 0.1
PCB 1260					< 0.1
Spike Level					
Dibutyl Chlorendate					103
Sequence Date					
alpha-BHC					
beta-BHC gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan l					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate Spike Level					
Vol Sequence	#1&2-08/31/93	#1&2-08/31/93			#1&2-08/31/93
CCI4	# 102-00/01/00	# 10.2-00/31/93			# 10(2-00)31)33
TCA					
Benzene	< 0.02	< 0.02			< 0.02
TCE					
Toluene	< 0.02	< 0.02			< 0.02
PCE					
Ethylbenzene	< 0.02	< 0.02			< 0.02
Xylenes	< 0.04	< 0.04			< 0.04
Gasoline	<2 J	<2 J			<2 J
Spike level					
BFB	110	112			123

ICF ID	≤୮(୭ BTR- <del>A009</del> -S09	ST18 BTR- <del>A0009</del> -S09	ST18 BTR <del>-A0009</del> -S09	<i>ST</i> 18 BTR- <del>A0009</del> -S10	ST18 BTR- <del>A009</del> -2811-1.5
F&BI Number	1318 dup	1318 ms	1318 msd	1308	1754
Sample Type	soil	soil	soil	soil	soil
Date Received	8/31/93	8/31/93	8/31/93	8/31/93	9/3/93
% Dry Weight	0/01/00	0,01,00	0,01,00	94	94
Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93	#6-08/31/93	• •
Leaded Gas	# 0 00/0 1/00	# 0 00/01/00	// C CO/C 1/CC	,, 0 00,00,,00	
JP-4	< 50			< 50	
Lube Oil	< 100			< 100	
Diesel	< 50	88	91	< 80	
Spike Level	<b>~30</b>	500	500	100	
Unknown Semi-volatile		000	000		
Pentacosane	114	87	84	80	
Sequence Date	#6-08/31/93	#6-08/31/93	#6-08/31/93		
PCB 1221	< 0.1	,, 0 00, 0 ,, 00	,, , , , , , , , , , , , , , , , , , , ,		
PCB 1232	< 0.1				
PCB 1016	< 0.1				
PCB 1242	< 0.1				
PCB 1248	< 0.1				
PCB 1254	< 0.1	97	103		
PCB 1260	< 0.1	<b>.</b>			
Spike Level		5	5		
Dibutyl Chlorendate	91	118	123		
Sequence Date	•				
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan l					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level	#400 00104100	#100 00/01/00	#102 00121102	#1&2-08/31/93	#1&2-09/06/93
Vol Sequence	#1&2-08/31/93	#1&2-08/31/93	#1&2-08/31/93	# 102-00[31]93	#102-05/00/55 < 0.1
CCI4 TCA					< 0.1
	< 0.02	107	94	< 0.02	0.15
Benzene TCE	~ ∪.∪∠	107	JŦ	~ 0.02	< 0.1
Toluene	< 0.02	94	96	< 0.02	0.1
PCE	~ 0.02	J4	30	~ U.UL	< 0.1
Ethylbenzene	< 0.02	100	94	< 0.02	0.2
Xylenes Xylenes	< 0.02 < 0.04	100	96	< 0.04	0.4 T
Aylenes Gasoline	<2.7	100	50	<2J	6 diesel J
Spike level	~2~	1	1	~= V	
BFB	87	110	96	114	91
ט וט	01	110	30		٠,

ICFID (111 Sub	ST(8 BTR- <del>A009</del> -2811-1.5	ST18-2512 BTR- <del>A009-2814.5</del>	-2. ST18-2512-2 BTR <del>A069-2514.5-</del>	ST(8 - 2512 - 2 BTR <del>-4009-2814.5</del>
F&BI Number	1754 dup	1752	1752 dup	1752 ms
Sample Type	soil	soil	soil	soil
Date Received	9/3/93			
% Dry Weight	95	9/3/93	9/3/93	9/3/93
	30	95	#0.0010F100	#0.0010F100
Sequence Date			#6-09/05/93	#6-09/05/93
Leaded Gas				
JP-4			< 60	
Lube Oil			< 120	
Diesel			< 60	97
Spike Level				500
Unknown Semi-volatile				
Pentacosane			96	98
Sequence Date				
PCB 1221				
PCB 1232				
PCB 1016				
PCB 1242				
PCB 1248				
PCB 1254				
PCB 1260				
Spike Level				
Dibutyl Chlorendate				
Sequence Date				
alpha-BHC				
beta-BHC				
gamma-BHC				
delta-BHC				
Heptachlor				
Aldrin				
Heptachlor Epoxide				
Endosulfan I				
DDE				
Dieldrin				
Endrin				
Endosulfan II				
DDD				
Endrin Aldehyde				
DDT				
Endosulfan Sulfate				
Endrin Ketone				
Methoxy Chlor				
Chlordane				
Dibutyl Chlorendate				
Spike Level		#400 00x5555		
Vol Sequence		#1&2-09/06/93	#1&2-09/06/93	#1&2-09/06/93
CCI4		< 0.1	< 0.1	32 outside recovery limits
TCA		< 0.1	< 0.1	89
Benzene		< 0.02	< 0.02	73
TCE		< 0.1	< 0.1	90
Toluene		< 0.02	< 0.02	78
PCE		< 0.1	< 0.1	106
Ethylbenzene		< 0.02	< 0.02	87
Xylenes		< 0.04	< 0.04	84
Gasoline		<1J	<1	
Spike level				
BFB		103	93	105

ICFID (1.11. and	ST/8 - 25/2 - 2 BTR <del>-A009-2614.5</del>	ST19 BTR- <del>A0009</del> -SD01	STT 8 BTR- <del>A0009</del> -SW01
F&BI Number	1752 msd	1320	317
Sample Type	soil	soil	water
Date Received	9/3/93	8/31/93	8/23/93
% Dry Weight		91	
Sequence Date	#6-09/05/93	#6-08/31/93	
Leaded Gas			
JP-4		< 50	
Lube Oil		< 110	
Diesel	92	< 70	
Spike Level	500		
Unknown Semi-volatile			
Pentacosane	130	93	
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate			
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan I			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level			
Vol Sequence	#1&2-09/06/93	#1&2-08/31/93	#3&4-08/24/93
CCI4	28 outside recovery limits		<1
TCA	96		<1
Benzene	80	< 0.02	<1
TCE	98		<1
Toluene	85	< 0.02	<1
PCE	124		<1
Ethylbenzene	95	< 0.02	<1
Xylenes	86	< 0.04	<2
Gasoline		<25	£50 < 100J
Spike level			
BFB	83	104	87

(ANALYTICAL DATA SHEETS FOR THE OLD DUMP SITE (LF19) (Formerly identified as AOC10)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

memlab Ref.#

:93.4301-9

Matrix

Client Sample ID :BTR-AOC18-S01 :SOIL

114.94

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

1

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS

PWSID

:DEW LINE :BARTER

:UA

WORK Order Report Completed

:70003 :10/04/93

Collected Received

:08/21/93 **@ 14:50** 

hrs. :08/24/93 @ 12:00 hrs.

Technical Director: STEPHEN C. FDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

OC Allowable Ext. Anal Parameter Results Qual Units Method Limits Date Date Init Volatile Organics EPA 8260 Benzene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM Bromopenzene 0.020 U mq/Kq EPA 8260 08/25 09/09 KWM Bromochloromethane 0.020 ŧ1 mq/Kq EPA 8260 08/25 09/09 KWM Bromodichloromethane 0.020 11 ma/Ka EPA 8260 08/25 09/09 KWM Bromoform 0.020 U mg/Kg EPA 8260 0**8/**25 09/**09** KWM Bromomethane 0.020 U mg/Kg **EPA** 8260 08/25 09/09 KWM n-Butylbenzene 0.020 U mg/Kg EPA 8260 0**8/**25 09/**09** KIM sec-Butylbenzene 0.020 U mg/Kg **EPA** 8260 08/25 09/09 KNM tert-Butylbenzne 0.020 U ma/Ka **EPA** 8260 08/25 09/09 KWM rbon Tetrachloride 0.020 U mg/Kg EPA 8260 08/25 09/09 KIM lorobenzene 0.020 u EPA 8260 mg/Kg 08/25 09/09 KWM Chloroethane 0.020 11 mg/Kg **EPA** 8260 08/25 09/09 KWM Chloroform 0.020 11 EPA 8260 mg/Kg 08/25 09/09 KWM Chloromethane 0.020 U mg/Kg **EPA** 8260 08/25 09/09 KIM 2-Chlorotoluene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM 4-Chlorotoluene 0.020 U mg/Kg **EPA** 8260 08/25 09/09 KWM Dibromochloromethane 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM 12Dibromo3Chloropropane 0.020 Ħ mg/Kg EPA 8260 08/25 09/09 KWM 1,2-Dibromoethane 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM Dibromomethane 0.020 П ma/Ka **EPA** 8260 08/25 09/09 KWM 1.2-Dichloropenzene 0.020 11 mg/Kg EPA 8260 08/25 09/09 KWM 1.3-Dichlorobenzene 0.020 U mg/Kg **EPA** 8260 08/25 09/09 KWM 1.4-Dichlorobenzene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM Dichlorodifluoromethane 0.020 U mq/Kq EPA 8260 08/25 09/09 KMM 1.1-Dichloroethane 0.020 11 mg/Kg **EPA** 8260 08/25 09/09 KIM 1,2-Dichloroethane 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM 1,1-Dichloroethene 0.020 U mg/Kg EPA 8260 08/25 09/09 KUM cis-1,2-Dichloroethene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM trans1,2-Dichloroethene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM 1,2-Dichloropropane 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM 1.3-Dichloropropane 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM 2,2-Dichloropropane 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM 1,1-Dichloropropene 0.020 U ma/Ka EPA 8260 08/25 09/09 KWM Ethylbenzene 0.020 U ma/Ka EPA 8260 . 08/25 09/09 KWM Hexachlorobutadiene 0.020 U ma/Ka EPA 8260 08/25 09/09 KWM Isopropylbenzene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM P-Isopropyltoluene 0.020 U mg/Kg **EPA** 8260 08/25 09/09 KWM



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.430	11 0	I/LL	OWI OF W	WUTTOTO			5633 B ST	DEET.
	11-7					ANCH	ORAGE, AK	0951A
Client Sample ID :BTR-AC	E10-501					ì	TEL. (907) 562	2-2343
Matrix :SOIL						F	AX: (907) 561	1-5301
	8mf 11.494							
Methylene Chloride	0.020	U	mg/Kg	FPA	8260	08/25	09/09	KWM
Napthalene	0.020	Ü	ng/Kg		8260	00/25	09/09	
n-Propylbenzene	0.020	Ü				08/23	09/09	KWM
Styrene	0.020	Ü	ng/Kg		8260	08/25	09/09	KWM
1112-Tetrachloroethane		_	mg/Kg		8260	08/25	09/09	KWH
1122-Tetrachloroethane		U	mg/Kg		8260	08/25	09/09	KWM
		บ	<b>og∕K</b> g		8260	08/25	09/09	KWM
Tetrachloroethene	0.020	U	m <b>g/K</b> g	EPA	8260	08/25	09/09	KWM
Toluene	0.020	U	mg/Kg	EPA	8260	08/25	09/09	KWM
1.2.3-Trichlorobenzene	0.020	U	mg/Kg	EΡλ	8260		09/09	KWM
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA	8260		09/09	KWM
1,1,1-Trichloroethane	0.020	ប	mg/Kg		8260		09/09-	KWM
1,1,2-Trichloroethane	0.020	Ü	mg/Kg		8260		09/09	
Trichloroethene	0.020	Ŭ	mg/Kg		8260	00/23	03/03	KWM
Trichlorofluoromethane	0.020	Ü				08/25	09/09	KWM
1,2,3-Trichloropropane		_	mg/Kg		8260		09/09	KWM
1,2,4-Trimethylbenzene		U	mg/Kg		8260		09/09	KWM
1 3 5 Trimethylbenzene		U	mg/Kg		8260		09/09	KWM
1,3,5-Trimethylbenzene		U	m <b>g/K</b> g		8260		0 <b>9/09</b>	KWM
Vinyl Chloride	0.020	U	mg/Kg		8260	08/25	09/09	KWM
P+m-Xylene	0.020	U	mg/Kg	EPA	8260	08/25	09/09	KWM
o-Xylene	0.020	U	mg/Kg	EPA	8260		09/09	KWM
_			-					
Semivolatile Organics				EPA	8270			ξij.
Phenol	0.200	U	ng/Kg		8270	09/04	09/28	
bis(2-Chloroethyl)ether	0.200	Ū	ng/Kg		8270		09/28	HT
2-Chlorophenol	0.200	ŭ	mg/Kg		8270		09/28	HIL
1,3-Dichlorobenzene	0.200	Ü			8270			HII
1,4-Dichlorobenzene	0.200	U	ng/Kg				09/28	HII
Benzyl Alcohol		_	mg/Kg		8270		09/28	HII
1,2-Dichlorobenzene	1.00	Ü	mg/Kg		8270		09/28	HII
2-Methylphenol	0.200	U	mg/Kg		8270		09/28	HII
bie/2 Chlorodenol	0.200	U	mg/Kg		8270		09/28	HIT
bis(2-Chloroisopropyl)		U	mg/Kg		8270	09/04	09/28	MII
4-Methylphenol	0.200	U	mg/Kg	EPA	8270	09/04	09/28	HIT
n-Nitroso-di-n-Propylar	0.200	U	mg/Kg	EPA	8270		09/28	HII
Hexachloroethane	0.200	U	mg/Kg	EPA	8270	09/04		HII
Nitrobenzene	0.200	U	mg/Kg		8270		09/28	HII
Isophorone	0.200	Ü	mg/Kg		8270		09/28	HII
2-Nitrophenol	0.200	ŭ	mg/Kg		8270	09/04		HII
2,4-Dimethylphenol	0.200	Ü	mg/Kg	_	8270	09/04		
Benzoic Acid	0.200	ŭ	mg/Kg		8270			HII
bis(2-Chloroethoxy)Meth	0.200	Ü			8270	09/04		HII
2,4-Dichlorophenol	0.200		mg/Kg				09/28.	HII
1,2,4-Trichlorobenzene		Ü	mg/Kg		8270	09/04		HII
Naphthalene	0.200	Ü	mg/Kg		8270	09/04		HIT
4-Chloroaniline	0.200	U	mg/Kg		8270	09/04		HII
Hencep   continue	0.200	U	mg/Kg		8270	09/04		HII
Hexachlorobutadiene	0.200	บ	mg/Kg		8270	09/04		HIT
4-Chloro-3-Methylphenol		U	<b>ng/</b> Kg		8270	09/04	09/28	MIT
2-Methylnaphthalene	0.200	U	mg/Kg	EPA	8270		09/28	HIT
Hexachlorocyclopentadie	0.200	U	mg/Kg		8270 ·	09/04		MII
2,4,6-Trichlorophenol	0.200	Ū	mg/Kg		8270	09/04		HII
2,4,5-Trichlorophenol	0.200	Ū	mg/Kg		8270	09/04		HII
2-Chloronaphthalene	0.200	Ü	ng/Kg		8270		09/28	
,		•	mA\ 1/A	LL A		U3/U4	V 7/ 40	HI
					١.			



## ENVIRONMENTAL LABORATORY SERVICES

COMMERCIAL TESTING & ENGINEERING CO.

-CE 1908			000					
memlab Ref.# :93.4301-9		REP	ORT of A	NALYSIS				
Client Sample ID :BTR-AOC10-SO	19					ANCHO	5 <b>633 B \$T</b> PRAGE: AK	
MATTIY .CATE   FIG							L: (907) 562	
Sul Sul	t					FA	X: (907) 561	
2-Nitroaniline	0.200	U	///-					M
Dimethylphthalate	0.200	Ü	mg/Kg	EPA 8270		09/04	09/28	HIL
Acenaphthylene	0.200	-	mg/Kg	EPA 8270		09/04	09/28	HIT
2,6-Dinitrotoluene	0.200	U	mg/Kg	EPA 8270		09/04	09/28	HII
3-Nitroaniline	0.200	U	mg/Kg	EPA 8270		09/04	09/28	HIT
Acenaphthene		U	mg/Kg	EPA 8270		09/04	09/28:	HII
2,4-Dinitrophenol	0.200	Ü	mg/Kg	EPA 8270		09/04	09/28	HII
4-Nitrophenol	0.200	Ü	mg/Kg	EPA 8270		09/04	09/28	HII
Dibenzofuran	0.200	U	mg/Kg	EPA 8270		09/04	09/28:	MIT
2,4-Dinitrotoluene	0.200	Ü	mg/Kg	EPA 8270		09/04	09/28	HII
Diethylphthalate	0.200	U	mg/Kg	EPA 8270		09/04	09/28	MII
4-Chlorophenyl-Phenylet	0.200	U	mg/Kg	EFA 8270		09/04	09/28	HII
Fluorene	0.200	U	mg/Kg	EPA 8270		09/04	09/2B	MII
4-Nitroaniline	0.200	Ü	mg/Kg	EPA 8270		09/04	09/2B	HII
4,6-Dinitro-2-Methylphe	0.200	U	<b>™g/K</b> g	EPA 8270		09/04	09/28	MII
n-Nitrosodiphenylamine	0.200	U	mg/Kg	EPA 8270		09/04	09/28	MII
4-Bromophenyl-Phenyleth	0.200	U	mg/Kg	EPA 8270		09/04	09/28	MIT
Hexachlorobenzene	0.200	U	m <b>g/K</b> g	EPA 8270		09/04		HII
Pentachlorophenol	0.200	U	mg/Kg	EPA 8270		09/04	09/28	HIL
Phenanthrene	0.200	U	m <b>g/</b> Kg	EPA 8270		09/04	09/28	HII
Anthracene	0.200	U	m <b>g/</b> Kg	EPA 8270		09/04	09/28	HII
di-n-Butylphthalate	0.200	Ü	mg/Kg	EPA 8270		09/04	09/28	HII
Fluoranthene	1.00	U	mg/Kg	EFA 8270		09/04	09/28	HIL
rene	0.200	U	m <b>g/K</b> g	EFA 8270		09/04	09/28	HIL
	0.200	U	mg/Kg	EPA 8270		09/04	09/28"	HIL
itylbenzylphthalate	0.200	U	m <b>g/K</b> g	EPA 8270		09/04	19/7RT	HII
3,3-Dichlorobenzidine	0.200	U	mg/Kg	EPA 8270		09/04		HIL
Benzo(a)Anthracene Chrysene	0.200	U	m <b>g/K</b> g	EPA 8270		09/04		HII
ble/2 Chbolks and a	0.200	U	mg/Kg	EPA 8270		09/04		HII
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270		09/04		HII
di-n-Octylphthalate	0.200	U	mg/Kg	EPA 8270		09/04		HIL
Benzo(b)Fluoranthene	0.200	U	mg/Kg	EPA 8270		09/04		MII
Benzo(k)Fluoranthene	0.200	U	ng/Kg	EPA 8270		09/04		HII
Benzo(a)Pyrene	0.200	U	mg/Kg	EPA 8270		09/04		HII
Indeno(1,2,3-cd)Pyrene	0.200	U	mg/Kg	EPA 8270		09/04		HII
Dibenz(a,h)Anthracene	0.200	U	mg/Kg	EPA 8270		09/04		HIL
Benzo(g,h,i)Perylene	0.200	U	mg/Kg	EPA 8270		09/04		MTT.
Canal o Canal						03/04 (	, , , , ,	HIT
Sample Preparation				EPA 3050 Digest				
Total Metals Analysis				-				19
ICP Screen, ICF				EPA	n/a			wheth
Aluminum	<b>250</b> 0		<b>ng/K</b> g	EPA 6010	, &	08/27 0	A/20:	DEL
Antimony	51	U	mg/Kg	EPA 6010		08/27 0		DEL
Arsenic	5.1	U	mg/Kg	EPA 6010		08/27 0		DEE.
Barium	16		mg/Kg	EPA 6010		08/27 0		DFL
Beryllium	2.6	U	mg/Kg	EPA 6010		08/27 0		DEE
Cadmium	2.6	U	ng/Kg	EPA 6010		08/27 0		DEL
Calcium	8400		mg/Kg	EPA 6010		08/27 0		DEL
Chromium	5.0		mg/Kg	EPA 6010		08/27 0		DFL
Cobalt	5.1	U	ng/Kg	EPA 6010		08/27 0		DFL.
Copper	7.9		mg/Kg	EPA 6010		08/27 0		
Iron	7500		mg/Kg	EPA 6010		08/27 0		DFL.
			· ·			<del></del>	U/ LJ	UF 14





ENVIRONMENTAL LABORATORY SERVICES

CACE 1979			250	ORT of AN	ALYSIS				
Chemiab Ref.# Client Sample II Matrix	:SOIL LF19		(CE)	DRI OI AN	WEISIS		T	5633 B ST ORAGE, AK EL: (907) 562 AX: (907) 561	99518 2-2343 1-5301
Lead	8mf 11.4.94	51	U	mg/Kg	EPA	6010	08/27	08/29	DFL
Magnesium		1500	_	mg/Kg		6010	08/27		DFL
Manganese		160		mg/Kg		6010	08/27		DEL
Molybdenum		2.6	U	mg/Kg		6010	08/27		DET.
Nickel		6.9		mg/Kg		6010	08/27		DEL
Potassium		340		mg/Kg	EPA	6010	08/27		DET
Selenium		51	U	mg/Kg	EPA	6010	08/27		DEL
Silver		2.6	U	mg/Kg	EPA	6010	08/27		DEL
Sodium		53		mg/Kg	EPA	6010	08/27	08/29	DEL
Thallium		0.25	U	mg/Kg	EPA	7841	08/26		KAW
Vanadium		5.8		<b>mg/K</b> g	EPA	6010	08/27	08/29	DFL.
Zinc		20		ma/Ka	EPA	6010	08/27		DET

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

NA = Not Analyzed LT = Less Than

GT = Greater Than

UA = Unavailable



See Special Instructions Above



REPORT of ANALYSIS

Chemiab Ref.#

:93.4301-8

Client Sample ID :BTR-AOC10-S04
Matrix :SOIL LIN

OMF 1.94

WORK Order

Client Name Ordered By Project Name

:ICF KAISER ENGINEERING : RAY MORRIS

: DEW LINE :BARTER

Project# PWSID :UA

:70003 Report Completed :10/04/93

Collected :08/21/93

Received :08/24/93 @ 12:00 hrs. Technical Director: STEPHEN/C. EDE

5633 B STREET ANCHORAGE. AK 99518 TEL: (907) 562-2343

hrs.

10.

FAX: (907) 561-5301

@ 13:45

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	QC Qual	Units	<b>Met</b> hod	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260				
Bromobenzene	0.020	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
Bromochloromethane	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
Bromodichloromethane	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
Bromoform	0.020	ŭ	mg/Kg	EPA 8260			09/09	KWM
Bromomethane	0.020	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
n-Butylbenzene	0.020	ŭ	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	0.020	ŭ	mg/Kg	EPA 8260			09/09	KWM
tert-Butylbenzne	0.020	ŭ	mg/Kg	EPA 8260		08/25	09/09	KWM
bon Tetrachloride	0.020	ü	ng/Kg	EPA 8260		08/25	09/09	KWM
corobenzene	0.020	ü	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroethane	0.020	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloroform	0.020	ŭ	mg/Kg	EPA 8260		08/25	09/09	KWM
Chloromethane	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
2-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
4-Chlorotoluene	0.020	_	mg/Kg	EPA 8260		08/25	09/09	KWM
Dibromochloromethane	0.020	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
12Dibromo3Chloropropage	0.020	_	mg/Kg	EPA 8260			09/09	KWM
1,4-Dipromoethane	0.020	-	mg/Kg				09/09	KWM
Dibromomethane	0.020	_	mg/Kg	EFA 8260 EFA 8260		08/25	09/09	KWM.
1,2-Dichlorobenzene	0.020	-	mg/Kg			08/25	09/09	KWM
1,3-Dichlorobenzene	0.020		mg/Kg	EPA 8260		08/25		KWM
1,4-Dichloropenzene	0.020	_	mg/Kg	EPA 8260		08/25		KWM.
Dichlorodifluoromethane	0.020	•	mg/Kg	EPA 8260		08/25		KWM
1,1-Dichloroethane	0.020	_	ng/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.020	_	mg/Kg	EPA 8260 EPA 8260		08/25		KWM
1,1-Dichloroethene	0.020	_	mg/Kg			08/25		KWM
cis-1,2-Dichloroethene	0.020	_		EPA 8260		08/25		KWM
trans1,2-Dichloroethene	0.020	_	m <b>g/K</b> g mg/Kg	EPA 8260		08/25		KWM
1,2-Dichloropropane	0.020	_	mg/kg	EPA 8260		08/25		KWM
1,3-Dichloropropage	0.020	_		EPA 8260		08/25		KWM
2,2-Dichloropropane	0.020	_	mg/Kg	EPA 8260		08/25		KWM
1,1-Dichloropropene	0.020	•	ng/Kg ng/Kg	EPA 8260 EPA 8260		08/25	09/09	KWM
tinylbenzene	0.020	•	m <b>g∕K</b> g	EPA 8260 .		08/25		KWM
Hexachlorobutadiene	0.020	-	mg/Kg	EPA 8260 .		08/25		KWM
Isopropylbenzene	0.020	•	m <b>g/K</b> g	EPA 8260		08/25		KWM
p-Isopropyitoluene	0.020	-	m <b>g/K</b> g	EPA 8260		08/25		KWM
	7.020	<b>U</b>		EFA 020U		08/25	09/09	KWM



ENVIRONMENTAL LABORATORY SERVICES

S.NCE 1908			DEDO	DOT OF ANIAC	VCTC				
	:93.4301-8		KEPU	RT of ANAL	1515			5633 B S	TRÉE
Client Sample ID		4				4		ORAGE, A	
Matrix	:SOIL LFI9	 BF41 11.7.9				Commits		TEL: (907) 5: FAX: (907) 5:	
I.GCI I.A		יין אין אין	7			Coronina		(, -	
Methylene Chlor	ide	0.020	U	mg/Kg	FPA	8260	08/25	09/09	K
Napthalene		0.020	Ü	mg/Kg		8260		09/09	
n-Propylbenzene		0.020	Ü	mg/Kg		8260		09/09	
Styrene		0.020	Ü	mg/Kg		8260		09/09	K
1112-Tetrachlor	pethane	0.020	Ü	mg/Kg		8260		09/09	ĸ
1122-Tetrachlor		0.020	Ü	mg/Kg		8260		09/09	K
Tetrachloroether		0.020	Ü	mg/Kg		8260		09/09	ĸ
Toluene		0.020	Ü	mg/Kg		8260		09/09	ĸ
1,2,3-Trichloro	nenzene	0.020	Ü	mg/Kg		8260		09/09	K
1,2,4-Trichloro		0.020	บ	mg/Kg		8260		09/09	K
1,1,1-Trichloro		0.020	ΰ	mg/Kg		8260		09/09	K,
1,1,2-Trichloro		0.020	บ					09/09	
Trichloroethene	ctionic	0.020	Ü	mg/Kg		8260		09/09	Kı
Trichlorofluoror	nethane	0.020	บ	mg/Kg		8260			Kı
1,2,3-Trichloro		0.020	Ü	mg/Kg		8260 8260		09/09	K/l
1,2,4-Trimethyl	•	0.020	Ü	mg/Kg				09/09	K1
1,3,5-Trimethylt				mg/Kg		8260		09/09	
Vinyl Chloride	Delizelle		U U	mg/Kg		8260		09/09	K/
p+m-Xylene		0.020	U	mg/Kg		8260		09/09	KI
o-Xylene		0.020	Ü	mg/Kg		8260		09/09 09/09	K
O-Ayrene		0.020	U	mg/Kg	LPA	8260	00/25	03/03	K
Semivolatile Org	anics				EDV	8270			
Phenol	,0.7100	0.210	U	mg/Kg		8270	09/04	09/28	I
bis(2-Chloroethy	(1)ether	0.210	Ü	mg/Kg		8270		09/28	
2-Chlorophenol		0.210	Ü	mg/Kg		8270		09/28	TM TM
1,3-Dichlorobenz		0.210	Ü	mg/Kg		8270		09/28	TM
1,4-Dichlorobenz	ene	0 210	11	mg/Kg		8270		09/28	TM
Benzyl Alcohol	0.710	1.0049	11	mg/Kg		8270 E, 3		09/28	MT
1,2-Dichlorobenz	ene		Ü	mg/Kg		8270		09/28	MT
2-Methylphenol		0.210	ΰ	mg/Kg		8270		09/28	MT
bis(2-Chloroisop	ropyl)e	0.210	Ü	mg/Kg		8270	-	09/28	MT
4-Methylphenol		0.210	บ	mg/Kg		8270		09/28	MT
n-Nitroso-di-n-F		0.210	Ü	mg/Kg		8270		09/28	MT
Hexachloroethane		0.210	Ü	mg/Kg		8270		09/28	MT
Nitrobenzene		0.210	Ŭ	mg/Kg		8270		09/28	MT
Isophorone		0.210	Ü	mg/Kg		8270		09/28	MT
2-Nitrophenol		0.210	Ü	mg/Kg		8270		09/28	MT
2,4-Dimethylphen		0.210	Ū	mg/Kg		8270	09/04		MT
Benzoic Acid		0.210	Ū	mg/Kg		8270	09/04		MT
bis(2-Chloroetho		0.210	Ū	mg/Kg		8270	09/04		MT
2,4-Dichlorophen		0.210	Ü	mg/Kg		8270	09/04		HT
1,2,4-Trichlorob		0.210		mg/Kg		8270	09/04		MT
Naphthalene		0.210	U	mg/Kg		8270	09/04		MT
4-Chloroaniline		0.210	U	mg/Kg		8270	09/04		MT
Hexachlorobutadi	ene	0.210	U	mg/Kg		8270	09/04		MT
4-Chloro-3-Methy		0.210	U	mg/Kg		8270	09/04		MT
2-Methylnaphthal		0.210		mg/Kg		8270	09/04		MT
Hexachlorocyclop		0.210		mg/Kg		8270	09/04		MT
2,4,6-Trichlorop		0.210		mg/Kg		8270	09/04		MT
2,4,5-Trichlorop	henol			mg/Kg		8270	09/04		XT.
2-Chloronaphthal				mg/Kg		8270	09/04		-
				- <del>-</del>			-	`	

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	ENVIRONMEN	TAL LABORATO	RY	SERVICES				
SINCE 1908			REP	ORT of AN	ALYSIS		5000 D 67	
chemlab Ref.	:93.4301						5633 B ST ANCHORAGE, AK !	
Client Sample							TEL: (907) 562	
Matrix	:SOIL	LF19 BFM 11.7.9	1				FAX: (907) 561	-5301
				•			00 (04 00 (00	w.m
2-Nitroanil		0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Dimethylpht	halate	0.210	บ	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphthy)		0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
2,6-Dinitro		0.210	U	mg/Kg	EPA 8270		09/04 09/28 09/04 09/28	MT
3-Nitroanil		0.210	U	mg/Kg	EPA 8270		09/04 09/28	MT
Acenaphther		0.210	υ	mg/Kg	EPA 8270		09/04 09/28	MT.
2,4-Dinitro		0.210	U	mg/Kg	EPA 8270		09/04 09/28	HT.
4-Nitropher		0.210	U	mg/Kg	EPA 8270 EPA 8270		09/04 09/28	MT.
Dibenzofura		0.210	U U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitro		0.210 0.210	บ	mg/Kg mg/Kg	EPA 8270		09/04 09/28	HT.
Diethylphth			Ü	mg/Kg	EPA 8270		09/04 09/28	MT
Fluorene	enyl-Phenyle	0.210	Ü	mg/Kg	EPA 8270		09/04 09/28	MT.
4-Nitroanil	ine	0.210	Ü	mg/Kg	EPA 8270		09/04 09/28	MT
	o-2-Methylphe		Ü	mg/Kg	EPA 8270		09/04 09/28	MT
	iphenylamine		Ü	mg/Kg	EPA 8270		09/04 09/28	MT
	yl-Phenyleti		Ū	mg/Kg	EPA 8270		09/04 09/28	MTT
Hexachlorob		0.210	U	mg/Kg	EPA 8270		09/04 09/28	MIT
Pentachlor		0.210	υ	mg/Kg	EPA 8270		09/04 09/28	MIT
Phenanthrer	-	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Anthracene		0.210	U	mg/Kg	EPA 8270		09/04 09/28	MTI
di-n-Butyl;	phthalate	0.210-1.00	U	mg/Kg	EPA 8270		09/04 09/28	MTI
Fluoranther	ne	0.210	U	mg/Kg	EPA 8270		09/04 09/28	MTI
Pyrene		0.210	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Butylbenzy:		0.210	U	mg/Kg	EPA 8270		09/04 09/28	TTM TTM
3,3-Dichlo		0.210	U	mg/Kg	EPA 8270		09/04 09/28 09/04 09/28	MTT
Benzo(a)An	thracene	0.210	U	mg/Kg	EPA 8270		09/04 09/28	HTI
Chrysene	1 h 1 \ 10 h 4 h =	0.210	U	mg/Kg	EPA 8270 EPA 8270		09/04 09/28	HTT
Dis(2-Etny.	inexyi)Phicha	<del>1.000</del> المررو 1 0.210	U U	mg/Kg	EPA 8270		09/04 09/28	TTM
di-n-Octyl Benzo(b)Fl		0.210	บ	mg/Kg mg/Kg	EPA 8270		09/04 09/28	MTI
Benzo(k)Fl		0.210	Ü	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Py		0.210	Ü	mg/Kg	EPA 8270		09/04 09/28	MTS
	,3-cd)Pyrene		Ü	mg/Kg	EPA 8270		09/04 09/28	MT.
	)Anthracene	0.210	Ū	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(g,h,		0.210	Ū	mg/Kg	EPA 8270		09/04 09/28	MT.
	•							
Sample Pre	paration				EPA 3050 Dig	gest		
	ls Analysis							
ICP Screen	, ICF				EPA	n/a	00/27 00/20	D(-4
Aluminum		2900		mg/Kg	EPA 6010		08/27 08/29 08/27 08/29	DFI DFI
Antimony		_52	U		EPA 6010	c 1 (our	08/27 08/29	DFI
Arsenic		5.2	U		EPA 6010	Qual. Comm.	08/27 08/29	DFT
Barium		23 2.6		mg/Kg	EPA 6010		08/27 08/29	DFI
Beryllium		2.6	U U		EPA 6010 EPA 6010		08/27 08/29	DFI
Cadmium		9800	U	mg/Kg mg/Kg	EPA 6010	J 4.1 (BFM 11.8.44	08/27 08/29	DFT
Calcium Chromium		5.4		mg/Kg	EPA 6010		08/27 08/29	DFT
Cobalt		5.2	U		EPA 6010		08/27 08/29	DFT
Copper		5.4	Ū	mg/Kg	EPA 6010		08/27 08/29	DFT
Iron		8000		mg/Kg	EPA 6010		00/03 00/00	DFT
		2000		a/ 1. a		( <b>@</b>	rigin by	
						1-18-94	, source de de	
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	<u> </u>	CCE					\ \Q.\?\;<\AY	
	' <u>'</u>	SGS Men	ber	of the SGS Gro	oup (Société Générale	e de Surveillance)	, 1131 1	



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908		DEP	ORT of AN	ALYSTS		
Chemlab Ref.# Client Sample ID Matrix	:93.4301-8 :BTR- <del>A0C10</del> -S04 :SOIL LF 19 BFM W.8			quil	20m	5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301
Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc	5.2 1700 120 2.6 6.8 390 52 2.6 60 0.27 6.6	u u u	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 6010 J EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 7841 EPA 6010 EPA 6010	T.1 6.1	08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF 08/27 08/29 DF
TOC, Soil	4950		mg/Kg	PSEP Ref Lab		

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4301-14

Client Sample ID :BTR-AOC10-S04 SPIKE

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Sul 945 :ICF KAISER ENGINEERING WORK Order

:70003 Report Completed :10/04/93

Collected :08/21/93 @ 13:45 hrs. :08/24/93 @ 12:00 hrs. Received

Technical Director: STEPHEN, C. EDE

Released By :

Ordered By :RAY MORRIS Project Name :DEW LINE Project# :BARTER

Client Name

**PWSID** 

:UA

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. FOR 8260

SPIKE AND SPIKE DUPLICATE RECOVERY AND RPD, SEE QC SUMMARY.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.190		mg/Kg	EPA 8260		08/25	09/09	KWM
	Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
	Bromochloromethane	0.020	U	mg/Kg	EPA 8260			09/09	KWM
	Bromodichloromethane	0.020	U	<b>∞g</b> /Kg	EPA 8260		08/25	09/09	KWM
	Bromoform	0.020	บ	mg/Kg	EPA 8260			09/09	KWM
	Bromomethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
	n-Butylbenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
4	sec-Butylbenzene	0.020	ប	mg/Kg	EPA 8260		08/25	09/09	KWM
4	rt-Butylbenzne	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
•	Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260			09/09	KWM
	Chlorobenzene	0.193		mg/Kg	EPA 8260		08/25	09/09	KWM
	Chloroethane	0.020	U	mg/Kg	EPA 8260			09/09	KWM
	Chloroform	0.020	ប	mg/Kg	EPA 8260			09/09	KWM
	Chloromethane	0.020	U	mg/Kg	EPA 8260			09/09	
	2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260			09/09	KWM
	4-Chlorotoluene	0.020	ប	mg/Kg	EPA 8260			09/09	KWM
	Dibromochloromethane	0.020	U	mg/Kg	EPA 8260			09/09	KWM
	12Dibromo3Chloropropane	0.020	บ	mg/Kg	EPA 8260			09/09	KWM
	1,2-Dibromoethane	0.020	ប	mg/Kg	EPA 8260			09/09	KWM
	Dibromomethane	0.020	บ	mg/Kg	EPA 8260		08/25		KWM
	1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	1,2-Dichloroethane	0.020	ប	mg/Kg	EPA 8260		08/25		KWM
	1,1-Dichloroethene	0.031		mg/Kg	EPA 8260		08/25		KWM
	cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25		KWM
	2,2-Dichloropropane	0.020	Ü	mg/Kg	EPA 8260		08/25		KWM
	1,1-Dichloropropene	0.020	Ū	mg/Kg	EPA 8260		08/25		KWM
	Ethylbenzene	0.020	Ū	mg/Kg	EPA 8260		08/25		KWM
	Hexachlorobutadiene	0.020	Ū	mg/Kg	EPA 8260		08/25		KWM
_	<u>Is</u> opropylbenzene	0.020	Ü	mg/Kg	EPA 8260		08/25		KWM
- 4									



p+m-Xylene

o-Xylene

### COMMERCIAL TESTING & ENGINEERING CO.

**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4301-14 ANCHORAGE, AK 99518 TEL: (907) 562-2343 Client Sample ID :BTR-AOC10-S04 SPIKE SOIL Figur FAX: (907) 561-5301 Matrix 08/25 09/09 KWM EPA 8260 0.020 U mg/Kg p-Isopropyltoluene 08/25 09/09 KWM EPA 8260 Methylene Chloride 0.020 U mg/Kg KWM 08/25 09/09 Napthalene 0.020 U ma/Ka EPA 8260 08/25 09/09 KWM 0.020 n-Propylbenzene U mg/Kg EPA 8260 08/25 09/09 KWM **EPA** 8260 0.020 U mq/Kq Styrene 08/25 09/09 KWM 0.020 EPA 8260 U 1112-Tetrachloroethane mg/Kg 08/25 09/09 KWM 0.020 **EPA** 8260 U 1122-Tetrachloroethane mg/Kg 08/25 09/09 0.020 **EPA** 8260 KWM U Tetrachloroethene mg/Kg **EPA** 8260 08/25 09/09 KWM 0.190 Toluene mg/Kg 08/25 09/09 KWM **EPA** 8260 1,2,3-Trichlorobenzene U 0.020 mg/Kg 08/25 09/09 KWM EPA 8260 0.020 ma/Ka 1,2,4-Trichlorobenzene 08/25 09/09 KWM **EPA** 8260 0.020 U mg/Kg 1,1,1-Trichloroethane 08/25 09/09 KWM EPA 8260 1,1,2-Trichloroethane 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM Trichloroethene 0.165 may/Ka 08/25 09/09 KWM EPA 8260 Trichlorofluoromethane 0.020 U mq/Kq 08/25 09/09 KWM 1,2,3-Trichloropropane EPA 8260 0.020 11 mg/Kg 08/25 09/09 KWM 1,2,4-Trimethylbenzene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM EPA 8260 1,3,5-Trimethylbenzene 0.020 u mg/Kg 08/25 09/09 KWM **EPA** 8260 Vinyl Chloride 0.020 H mg/Kg 08/25 09/09 **EPA** 8260 KWM 0.020 П mg/Kg

EPA 8260

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

0.020

U

mg/Kg

D = Secondary dilution.

UA = Unavailable

08/25 09/09

KWM

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

chemlab Ref.# :93.4301-15

Client Sample ID :BTR-ACCIO-SO4 SPIKE DUPLICATE Matrix :SOIL LFJJJ-95

12.595

ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

5633 B STREET

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS

:DEW LINE

WORK Order :70003 Report Completed :10/04/93

:08/21/93 @ 13:45 hrs.

Project#

:BARTER

Collected Received

:08/24/93 @ 12:00 hrs.

PWSID :UA Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M. FØR 8260

SPIKE AND SPIKE DUPLICATE RECOVERY AND RPD, SEE QC SUMMARY.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.192		mg/Kg	EPA 8260		00/25	09/09	KWM
Bromobenzene	0.020	U	mg/Kg	EPA 8260			09/09	KWM
Bromochloromethane	0.020	บ	mg/Kg	EPA 8260			09/09	KWM
Bromodichloromethane	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
Bromoform	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
Bromomethane	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
n-Butylbenzene	0.020	ប៊	mg/Kg	EPA 8260			09/09	KWM
sec-Butylbenzene	0.020	บั	mg/Kg	EPA 8260			09/09	KWM
ert-Butylbenzne	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
Carbon Tetrachloride	0.020	ŭ	mg/Kg	EPA 8260			09/09	KWM
Chlorobenzene	0.194	•	ng/Kg	EPA 8260			09/09	KWM
Chloroethane	0.020	U	mg/Kg	EPA 8260			09/09	KWM
Chloroform	0.020	Ū	mg/Kg	EPA 8260			09/09	KWM
Chloromethane	0.020	Ü	mg/Kg	EPA 8260		08/25		KWM
2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260			09/09	KWM
4-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260		08/25		KWM
Dibromochloromethane	0.020	U	mg/Kg	EPA 8260			09/09	KWM
12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260			09/09	KWM
1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260			09/09	KWM
Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25		KWM
1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		KWM
1,3-Dichlorobenzene	0.020	- U	mg/Kg	EPA 8260		08/25		KWM
1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25		KWM
1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.020	U	mg/Kg	<b>EPA</b> 8260		08/25	09/09	KWM
1,1-Dichloroethene	0.030		mg/Kg	EPA 8260		08/25	09/09	KWH
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWH
trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25		KWM
1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25		KWM
2,2-Dichloropropane	0.020	U	mg/Kg	<b>EPA</b> 8260		08/25		KWM
1,1-Dichloropropene	0.020	U	mg/Kg	EPA 8260		08/25	09/09	KWM
Ethylbenzene	0.020	U	mg/Kg	EPA 8260		08/25		KWM
Hexachlorobutadiene	0.020	บ	mg/Kg	EPA 8260		08/25		KWM
Isopropylbenzene	0.020	บ	mg/Kg	EPA 8260		08/25	09/09	KWM



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4301-15 ANCHORAGE, AK 99518 Client Sample ID :BTR-AQC10-S04 SPIKE DUPLICATE TEL: (907) 562-2343 Matrix :SOIL FAX: (907) 561-5301 p-Isopropyltoluene 0.020 U ma/Ka **EPA** 8260 08/25 09/09 KWM Methylene Chloride 0.020 U **EPA** 8260 mg/Kg 08/25 09/09 KWM Napthalene 0.020 U 08/25 09/09 mg/Kg **EPA** 8260 KWM n-Propylbenzene 0.020 mg/Kg 11 EPA 8260 08/25 09/09 KWM Styrene 0.020 U **EPA** 8260 08/25 09/09 mg/Kg KWM 1112-Tetrachloroethane 0.020 U **EPA** 8260 08/25 09/09 mg/Kg KWM 1122-Tetrachloroethane 0.020 U **EPA** 8260 mg/Kg 08/25 09/09 KWM Tetrachloroethene 0.020 U mg/Kg **EPA** 8260 08/25 09/09 KWM Toluene 0.191 mg/Kg **EPA** 8260 08/25 09/09 KWM 1,2,3-Trichlorobenzene 0.020 U EPA 8260 08/25 09/09 mg/Kg KWM f,2,4-Trichlorobenzene 0.020 U EPA 8260 mg/Kg 08/25 09/09 KWM 1.1.1-Trichloroethane 0.020 U **EPA** 8260 mg/Kg 08/25 09/09 KWM 1,1,2-Trichloroethane 0.020 08/25 09/09 U ma/Ka EPA 8260 KWM Trichloroethene 0.156 mq/Kq EPA 8260 08/25 09/09 KWM Trichlorofluoromethane 0.020 EPA 8260 mq/Kq 08/25 09/09 KWM 1,2,3-Trichloropropane 0.020 EPA 8260 mg/Kg 08/25 09/09 KWM 1,2,4-Trimethylbenzene 0.020 U EPA 8260 ma/Ka 08/25 09/09 KWM 1,3,5-Trimethylbenzene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM Vinyl Chloride 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM p+m-Xylene 0.020 U mg/Kg EPA 8260 08/25 09/09 KWM o-Xylene 0.020

U

mg/Kg

EPA 8260

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

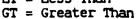
UA = Unavailable

08/25 09/09

KWM

NA = Not Analyzed

LT = Less Than





Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

unemiab Ref.#

:93.4301-10 Client Sample ID : BTR-A0C10-S06

Matrix

PWSID

:SOIL

LF19 8ml 11:494

5633 8 STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

:DEW LINE :BARTER

:RAY MORRIS

:UA

WORK Order Report Completed

Collected

Received

:70003 :10/04/93

:08/21/93

@ 13:45 hrs. hrs.

. No. 1

:08/24/93 8 12:00 Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

Parameter	Results	Qual QC	Units	Hethod	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		09/25	09/09	
Bromobenzene	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
Bromochloromethane	0.020	Ü	ng/Kg	EPA 8260			09/09	KWH
Bromodichloromethane	0.020	Ü	mg/Kg	EPA 8260			09/09	KWM
Bromoform	0.020	ŭ	mg/Kg	EPA 8260			09/09	KWM
Bromomethane	0.020	Ü	ng/Kg	EPA 8260				KWM
n-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
sec-Butylbenzene	0.020	u	mg/Kg	EPA 8260				KWM
tert-Butylbenzne	0.020	Ū	mg/Kg	EPA 8260		08/25	09/09	KWM
rbon Tetrachloride	0.020	Ü	mg/Kg	EPA 8260		08/25		KWM
lorobenzene	0.020	ŭ	mg/Kg	EPA 8260			09/09	
Chloroethane	0.020	Ü	mg/Kg	EPA 8260		08/25		KWM
Chloroform	0.020	ŭ	mg/Kg	EPA 8260		08/25		KWM
Chloromethane	0.020	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
2-Chlorotoluene	0.020	ŭ	mg/Kg	EPA 8260		08/25		KWM
4-Chlorotoluene	0.020	Ü	ng/Kg	EPA 8260		08/25		KWM
Dibromochloromethane	0.020	ŭ	mg/Kg	EPA 8260			09/09	
12Dibromo3Chloropropane	0.020	ŭ	mg/Kg	EPA 8260		08/25		KWM
1,2-Dibromoethane	0.020	บั	mg/Kg	EPA 8260		08/25		KWM
Dibromomethane	0.020	Ü	mg/Kg	EPA 8260		08/25	03/09	KWM
1,2-Dichlorobenzene	0.020	ŭ	mg/Kg	EPA 8260		08/25	09/09	KWH
1,3-Dichlorobenzene	0.020	ü	mg/Kg	EPA 8260		08/25		KWM
1,4-Dichlorobenzene	0.020	ŭ	ng/Kg	EPA 8260		08/25		KWM
Dichlorodifluoromethane	0.020	ü	ng/Kg	EPA 8260		08/25		KWM
1,1-Dichloroethane	0.020	ŭ	ng/Kg	EPA 8260		08/25	09/09	KWM
1,2-Dichloroethane	0.020	Ü	mg/Kg	EPA 8260		08/25		KWM
1,1-Dichloroethene	0.020	Ü	mg/Kg	EPA 8260		08/25		KWM
cis-1,2-Dichloroethene	0.020	ŭ	mg/Kg	EPA 8260		08/25		KWM
trans1,2-Dichloroethene	0.020	Ü	ng/Kg	EPA 8260		08/25		KWM
1,2-Dichloropropane	0.020	Ü	ng/Kg	EPA 8260		08/25		KWM
1,3-Dichloropropane	0.020	ŭ	ng/Kg	EPA 8260		08/25		KWM
2,2-Dichloropropane	0.020	_	mg/Kg	EPA 8260		08/25		KWM
1,1-Dichloropropene	0.020		ng/Kg	EFA 8260		08/25		KWM
Ethylbenzene	0.020	_	mg/Kg	EPA 8260		08/25		KWM
Hexachlorobutadiene	0.020		mg/Kg	EPA 8260		08/25		KWM
Isopropylbenzene	0.020	_	mg/Kg	EPA 8260		08/25		KWM
p-Isopropyltoluene	0.020		mg/Kg	EPA 8260		08/25		KWM
		•	<b></b>	EL A 0200		08/25	03/03	KWM



ENVIRONMENTAL LABORATORY SERVICES

5-9-08 1908		DET	OPT of the	Ar vere	
Chemlab Ref.# :93.4301-10		KEL!	ORT of AN	ALISIS	5633 B STREE
Client Sample ID :BTR-AOC10-S	06				ANCHORAGE, AK 9951
Matrix :SOIL LF19					TEL: (907) 562-234 FAX: (907) 561-530
SMA	ų .				· na. (307) 301/330
Methylene Chloride	0.020	ប	mg/Kg	EPA 8260	09/25 00/00 #
Napthalene	0.020	Ü	ng/Kg	EPA 8260	08/25 09/09 K
n-Propylbenzene	0.020	Ü			08/25 09/09 K
Styrene	0.020	u	mg/Kg	EPA 8260	08/25 09/09 K
1112-Tetrachloroethane	0.020	U	ng/Kg	EPA 8260	08/25 09/09 K
1122-Tetrachloroethane	0.020	u	ng/Kg	EPA 8260	08/25 09/09 K
Tetrachloroethene	0.020	_	ng/Kg	EPA 8260	08/25 09/09 K
Toluene	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
1,2,3-Trichlorobenzene		Ü	mg/Kg	EPA 8260	08/25 09/09 K
1,2,4-Trichlorobenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/09° K
1,1,1-Trichloroethane	0.020	U	mg/Kg	EPA 8260	08/25 09/ <b>0</b> 9 K
1,1,2-Trichloroethane	0.020	Ü	m <b>g/K</b> g	EPA 8260	08/25 09/09 K
Trichloroethene	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
	0.020	U	mg/Kg	EPA 8260	08/25 09/09 к
Trichlorofluoromethane	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
1,2,3-Trichloropropane	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
1.2.4-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
1,3,5-Trimethylbenzene	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
Vinyl Chloride	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
p+m-Xylene	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
o-Xylene	0.020	U	mg/Kg	EPA 8260	08/25 09/09 K
Semivolatile Organics					
Phenol	0.210	,,	/!!	EPA 8270	
bis(2-Chloroethyl)ether	0.210	Ü	ng/Kg	EPA 8270	09/04 09/28 H
2-Chlorophenol	0.210	U U	mg/Kg	EPA 8270	09/04 09/28 H
1,3-Dichlorobenzene	0.210	Ü	mg/Kg	EPA 8270	09/04 09/28" H
1,4-Dichlorobenzene	0.210	Ü	ng/Kg	EPA 8270	09/04 09/28 H
Benzyl Alcohol	1.00	Ü	mg/Kg	EPA 8270	09/04 09/28 H
1,2-Dichlorobenzene	0.210	Ü	mg/Kg	EPA 8270	09/04 09/28 H
2-Methylphenol	0.210	U	ng/Kg	EPA 8270	09/04 09/28 ¹¹ H
bis(2-Chloroisopropyl)e	0.210	Ü	mg/Kg	EPA 8270	09/04 09/28 m
4-Methylphenol	0.210	U	mg/Kg	EPA 8270	09/04 09/28 m
n-Nitroso-di-n-Propylam	0.210	Ü	mg/Kg	EPA 8270	09/04 09/28 H
Hexachloroethane	0.210	Ü	mg/Kg	EPA 8270	09/04 09/28 ¹ m
Nitrobenzene	0.210	บ	mg/Kg	EPA 8270	09/04 09/28 H
Isophorone	0.210	บ	ng/Kg	EPA 8270	09/04 09/28 ¹¹ H
2-Nitrophenol	0.210	ซ	mg/Kg mg/Kg	EPA 8270	09/04 09/28. H
2.4-Dimethylphenol	0.210	บ	mg/Kg	EPA 8270	09/04 09/283 H
Benzoic Acid	0.210	บ	mg/Kg	EPA 8270	09/04 09/28 / m
bis(2-Chloroethoxy)Meth	0.210	Ü	mg/Kg	EPA 8270 EPA 8270	09/04 09/28 H
2,4-Dichlorophenol	0.210	ŭ	mg/Kg	EPA 8270	09/04 09/28 M
1,2,4-Trichlorobenzene	0.210	Ü	mg/Kg		09/04 09/28" M
Naphthalene	0.210	บ	mg/Kg	EPA 8270 EPA 8270	09/04 09/28 m
4-Chloroaniline	0.210	Ü	mg/Kg	EPA 8270	09/04 09/28 M
Hexachlorobutadiene	0.210	บ	mg/Kg	EPA 8270	09/04 09/28° M
4-Chloro-3-Methylphenol	0.210	บ	mg/Kg		09/04 09/28: htt
2-Methylnaphthalene	0.210	Ü		EPA 8270	09/04 09/28 HT
Hexachlorocyclopentadie	0.210	Ü	mg/Kg	EPA 8270	09/04 09/28 M
2,4,6-Trichlorophenol	0.210	U	mg/Kg	EPA 8270.	09/04 09/28 M
2,4,5-Trichlorophenol	0.210	_	ng/Kg	EPA 8270	09/04 09/28 M
2-Chloronaphthalene	0.210	U U	mg/Kg	EPA 8270	09/04 09/28 MT
	0.210	U	mg/Kg	EPA 8270	09/04 09/28 MT



ENVIRONMENTAL LABORATORY SERVICES

NCE 1908							
chemlab Ref.# :93.4301-1	•	REPORT C	f ANALYSIS				
Client Sample ID :BTR-AOC10	U				44	5633 8 ST	REET
Matrix :SOTE 159	-506				AN	CHORAGE, AK	99518
matrix :SOIL 49	u¢ .					FAX: (907) 561	r·2343 i-5301
	પે. <b>૧</b> વ					(000)	64
2-Nitroaniline	0.210	U mg/	Ka EPA	8270	097	04 09/28	
Dimethylphthalate	0.210	U mg/		8270	09/0	14 03/25	HII
Acenaphthylene	0.210	U mg/		8270	09/0	04 09/28	HII
2,6-Dinitrotoluene	0.210	U mg/		8270	09/0	04 09/28	HII.
3-Nitroaniline	0.210	U mg/		8270	09/0	4 09/28	HIL
Acenaphthene	0.210	U mg/		8270	09/0	4 09/28	HIT
2,4-Dinitrophenol	0.210	U mg/			09/0	4 09/28	HIT.
4-Nitrophenol	0.210			8270	09/0	4 09/28	
Dibenzofuran	0.210			8270	09/0	4 09/28	HIT.
2,4-Dinitrotoluene	0.210			8270	09/0	4 09/28	HIL
Diethylphthalate	0.210			8270	09/0	4 09/28	HIT.
4-Chlorophenyi-Phenylet	0.210	U mg/		8270	09/0	4 09/28	MIL
Fluorene		U mg/		8270	09/0	4 09/2B	HIT
4-Nitroaniline	0.210	U mg/		8270	09/0	4 09/28	MII
4,6-Dinitro-2-Methylphe	0.210	U mg/		8270	09/0	4 09/28	HII
n-Nitrosodiphenylamine	0.210	U mg/			09/0	4 09/28	HII
4-Bromophenyl-Phenyleth	0.210	U mg/	kg epa	8270	09/0	4 09/28	MII
Hexachlorobenzene	0.210	U mg/	kg epa	8270	09/0	4 09/28:	HII
Pentachlorophenol	0.210	U mg/	kg <b>epa</b> :	8270	09/0	4 09/28:	HII
Phenanthrene	0.210	U mg/	Kg EPA	8270	09/0	4 09/28	HII
Anthracene	0.210	U mg/	Kg <b>epa</b> :	8270	09/0	4 09/28	HII
di-n-Butylphthalate	0.210	U mg/	kg <b>epa</b> :	8270	09/0	4 09/28	HII
Fluoranthene	0.210	U mg/	Kg EPA	8270	09/0	4 09/28:	HII
yrene	0.210	U mg/	Kg EPA	8270	09/0	4 09/28	HII
	0.210	U mg/			09/0	4 09/28	HII
3 3-Dishlaman	0.210	U mg/			0,00	4 09/28	HII
3,3-Dichlorobenzidine	0.210	U mg/			0\00	4 09/28	HII
Benzo(a)Anthracene Chrysene	0.210	U mg/1			0,60	4 09/28	HII
Maysene	0.210	U mg/1			09/0	4 09/28	
bis(2-Ethylhexyl)Phthal	0.210	U mg/1			03/0	4 09/28	HII.
di-n-Octylphthalate	0.210	U mg/l				4 09/28.:	HII
Benzo(b)Fluoranthene	0.210	U mg/l			03/0	4 09/28	HII
Benzo(k)Fluoranthene	0.210	U mg/l			03/0	4 09/28	HII
Benzo(a)Pyrene	0.210	U mg/			03/0	4 09/28	HII
Indeno(1,2,3-cd)Pyrene	0.210	U mg/			03/0	4 09/28	HII
Dibenz(a,h)Anthracene	0.210	U mg/k			03/0	4 09/28	HII
Benzo(g,h,i)Perylene	0.210	U mg/k			03/0	4 09/28	HII
Cone) - n					03/0	4 03/48	HII
Sample Preparation			EPA 3050	Digest			
Total Metals Analysis				-			40.1
ICP Screen, ICF			53	PA	n/a	<b>.</b> .*	46
Aluminum	3 <b>50</b> 0	mg/l				7 08/29	
Antimony		U mg/k				7 08/29	DFL.
Arsenic		U mg/H				7 08/29 ···	DEL
Barium	31	<b>ng/</b> k					DEL
Beryllium		U mg/K				7 08/29	DEL
Cadmium		U mg/k				7 08/29	DFC
Calcium	12000	mg/K				7 08/29	DEL
Chromium	7.4	mg/K				7 08/29	DEL
Cobalt		U mg/K				7 08/29	DEL
Copper	4.8	mg/k				7 08/29	DFL
Iron	8800	ng/k				7 08/29	DFL
		m3\1	A FLW C		08/2	7 08/29~	DFC
				•_			\$ = 75





ENVIRONMENTAL LABORATORY SERVICES

Chamlah Das #	00 1001	1	REPC	RT of AN	ALYSIS				
Chemiab Ref.# Client Sample ID Matrix	:93.4301-10 :BTR-A <del>0C10</del> -506 :SOIL UF19 :WH-94						TE	5633 B STI PRAGE, AK 9 EL: (907) 562 XX: (907) 561	99518 ?-2343 !-5301
Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc	19	4.9 900 130 2.5 7.8 410 49 2.5 70 .26	บ บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA EPA EPA EPA EPA EPA EPA EPA	6010 6010 6010 6010 6010 6010 6010 6010	08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27	08/29 08/29 08/29 08/29 08/29 08/29 08/29 08/29 08/29	DFL DFL DFL DFL DFL DFL DFL DFL DFL DFL

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



(Société Générale de Surveillance)

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.



ENVIRONMENTAL LABORATORY SERVICES

REFORT of ANALYSIS

Chemlab Ref.# :93.4303-6 Client Sample ID :BTR-A0C10-SW01

:WATER LFIA BEM 417.94 Matrix

:ICF KAISER ENGINEERING Client Name

:RAY MORRIS Ordered By :DEW LINE Project Name Project# :BARTER

:UA PWSID

:70013 WORK Order

Report Completed :09/30/93

:08/21/93 @ 13:05 hr: Collected :08/24/93 @ 12:00 hr Received

5633 B STREET ANCHORAGE, AK 99513

TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G.

Allowable

			QC			Allowable	Ext. Date	Anal Date	Ini
	Parameter	Results (	Qual	Units	Method 	Limits			
_	Volatile Organics VAUDATION				EPA 8260		00.403	00 (03	KW
	Benzene	0.0010	UY	Mg/L	EPA 8260			09/02	-KW
	Bromobenzene (Comment)	0.0010	U	mg/L	EPA 8260			09/02 09/02	KW
	Bromochloromethane	0.0010	U	mg/L	EPA 8260				KM
	Bromodichloromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02 09/02	KW
	Bromoform	0.0010	U	mg/L	EPA 8260			09/02	KM
	Bromomethane	0.0010	U	mg/L	EPA 8260				KW
	n-Butylbenzene	0.0010	U	mg/L	EPA 8260			09/02 09/02	KW
	sec-Butylbenzene	0.0010	U	mg/L	EPA 8260			09/02	KW
	tert-Butylbenzne	0.0010	U	mg/L	EPA 8260				KK
	Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260			09/02	KW
	Chlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	Kh
	Chloroethane	0.0010	U	mg/L	EPA 8260				KF
	Chloroform	0.0010	Ü	_nmg/L	EPA 8260	_61		09/02	K.
	Chloromethane 0.0021-0-005	0.0021		₩mg/L	EPA 8260 (W)	-///		09/02	Kŀ
	2-Chlorotoluene	0.0010	U	mg/L	EPA 8260			09/02	K
	4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02	09/02	K.
	Dibromochloromethane	0.0010	U	mg/L	EPA 8260			09/02	K¥
	12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260			09/02	K1
	1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260			09/02	K.
	Dibromomethane	0.0010	Ü	mg/L	EPA 8260			09/02	KI
	1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	K)
	1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	KI
	1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	KI
	Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260			09/02	Kı
	1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260 (W)	-F.1		09/02	KI
	1,2 510		-	mg/L	EPA 8260	•		2 09/02	KI
	1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260			2 09/02	
	cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260			2 09/02	
	trans1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260			2 09/02	
	1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260			2 09/02	
	1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260			2 09/02	
	2,2-Dichloropropane	0.0010		mg/L	EPA 8260			2 09/02	
	1,1-Dichloropropene	0.0010		mg/L	EPA 8260			2 09/02	
	Ethylbenzene	0.0010		mg/L	EPA 8260			2 09/02	
y .	Hexachlorobutadiene Isopropylbenzene	0.0010		mg/L	EPA 8260			2 09/02	
	p-Isopropyltoluene	0.0010 0.0010		mg/L	EPA 8260			2 09/02	
 3	b. 130b10bl1c01deile	0.0010	U	mg/L	(A)	1	-		
					(08)	1-94			
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					t ·				

Member of the SGS Group (Société Générale de Surveillance)

# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

ENVIRONMENTAL	LABORATORY	SERVICES		
3 × 12 5 × 12 5	SW01 519 0.0010 U	ORT of ANA	LYSIS	5633 B STREET
chemlah Ref.# :93.4303-6	3 <b>3.</b>	Ť.		ANCHORAGE, AK 99518
Chemlab Ref.# :93.4303-6 Client Sample ID :BTR-AOC10-	·SW01 & "	3		TEL. (907) 562-2343 FAX: (907) 561-5301
Matrix :WATER L	F19 3 4	, <b></b>		1 / M. (307) 30 · 01 ·
nactix	8FM 11.7.94 \$ \$	9		09/02 09/02 KWt
Methylene Chloride	9.0010 U	Mmg/L	EPA 8260	09/02 09/02 KWI 09/02 09/02 KWI
Napthalene	7 0.0010 U	′mg/L	EPA 8260	09/02 09/02 KWF
n-Propylbenzene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWI
Styrene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWF
1112-Tetrachloroethane	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWI
1122-Tetrachloroethane	0.0010 U	mg/L	EPA 8260 EPA 8260	09/02 09/02 KW
Tetrachloroethene	0.0010 U	mg/L	EPA 8260 EPA 8260	09/02 09/02 KWE
		mg/L	EPA 8260	09/02 09/02 KWI
1,2,3-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWt
1,2,4-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWI
1,1,1-Trichloroethane	0.0010 U 0.0010 U	mg/L mg/L	EPA 8260	09/02 09/02 KWI
1,1,2-Trichloroethane	••••	mg/L	EPA 8260	09/02 09/02 KWI
Trichloroethene	0.0010 U 0.0010 U	mg/L	EPA 8260	09/02 09/02 KWI
Trichlorofluoromethane	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWI
1,2,3-Trichloropropane	0.0010 U		EPA 8260	09/02 09/02 KWI
1,2,4-Trimethylbenzene	0.0010 U	_	EPA 8260	09/02 09/02 KWI
1,3,5-Trimethylbenzene	0.0010 U		EPA 8260	09/02 09/02 KWI
Vinyl Chloride	0.0010 U		EPA 8260	09/02 09/02 KWI
p+m-Xylene	0.0010 U		EPA 8260	09/02 09/02 KWI
o-Xylene				
Semivolatile Organics			EPA 8270	08/27 08/29
Phenol	0.033 U	•	EPA 8270	08/27 08/29
bis(2-Chloroethyl)ether	0.033 U		EPA 8270	08/27 08/29 MT.
2-Chlorophenol	0.033 U		EPA 8270	08/27 08/29 MT
1,3-Dichlorobenzene	0.033 U		EPA 8270 EPA 8270	08/27 08/29 MT
1,4-Dichlorobenzene	0.033 U		EPA 8270	08/27 08/29 MT
Benzyl Alcohol	0.033 U	-	EPA 8270	08/27 08/29 MT
1,2-Dichlorobenzene	0.033 U 0.033 U	- ·	EPA 8270	08/27 08/29 MT
2-Methylphenol	0.033 U		EPA 8270	08/27 08/29 MT
bis(2-Chloroisopropyl)e	0.033 U		EPA 8270	08/27 08/29 MT
4-Methylphenol	0.033		EPA 8270	08/27 08/29 MT
n-Nitroso-di-n-Propylam	0.033	_	EPA 8270	08/27 08/29 MT
Hexachloroethane	0.033	<del>-</del>	EPA 8270	08/27 08/29 MT
Nitrobenzene Isophorone	0.033 U		EPA 8270	08/27 08/29 MT 08/27 08/29 MT
2-Nitrophenol	0.033 t		EPA 8270	<b>00</b> / = · ·
2,4-Dimethylphenol	0.033 t	J mg/L	EPA 8270	08/27 08/29 MT 08/27 08/29 MT
Benzoic Acid	0.033 t	J mg/L	EPA 8270	08/27 08/29 MT
bis(2-Chloroethoxy)Meth	0.033 U		EPA 8270	08/27 08/29 MT
2,4-Dichlorophenol	0.033 t	_	EPA 8270	08/27 08/29 MT
1,2,4-Trichlorobenzene	0.033		EPA 8270	08/27 08/29 MT
Naphthalene		J mg/L	EPA 8270 EPA 8270	08/27 08/29 MT
4-Chloroaniline		J mg/L	EPA 8270	08/27 08/29 MT
Hexachlorobutadiene		J mg/L J mg/L	EPA 8270	08/27 08/29 MI
4-Chloro-3-Methylphenol		U mg/L U mg/L	EPA 8270	08/27 08/29 MI
2-Methylnaphthalene		U mg/L	EPA 8270	08/27 08/29 MT
Hexachlorocyclopentadie 2,4,6-Trichlorophenol		U mg/L	EPA 8270	08/27 08/29 MT
2,4,5-Trichlorophenol		U mg/L	EPA 8270	08/27 08/29
2-Chloronaphthalene		U mg/L	EPA 8270	08/27 08/29
			0P g .9	4
			W.9-1	I



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

5.518 (90)	F	REPOR	RT of ANA	LYSIS		5633 8 STR	
Chemlab Ref.# :93.4303-		۱۱Aa	HOMMON QU	IMI FIER		ANCHORAGE, AK 99 TEL: (907) 562-7	
Client Comple ID . PTP-MACH	10-2M01	/ /	/ss	\		FAX: (907) 561-	
Matrix : WATER	F19 & C. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	- 1	(COMMENT)	<i>)</i>			
		UV		<b>55.</b> 0270		08/27 08/29	MT.
2-Nitroaniline	0.033		mg/L	EPA 8270		08/27 08/29	MT
Dimethylphthalate	0.033	U	mg/L	EPA 8270		08/27 08/29	MT
Acenaphthylene	0.033	U	mg/L	EPA 8270 EPA 8270		08/27 08/29	MT
2,6-Dinitrotoluene	0.033	U	mg/L	EPA 8270 EPA 8270		08/27 08/29	MT
3-Nitroaniline	0.033	U	mg/L	EPA 8270		08/27 08/29	MT
Acenaphthene	0.033	Ü	mg/L	EPA 8270		08/27 08/29	MT
2,4-Dinitrophenol	0.033	U	mg/L	EPA 8270		08/27 08/29	MT
4-Nitrophenol	0.033	Ü	mg/L	EPA 8270		08/27 08/29	MT
Dibenzofuran	0.033	Ü Ü	mg/L	EPA 8270		08/27 08/29	MT
2,4-Dinitrotoluene	0.033 0.033	บ	mg/L mg/L	EPA 8270		08/27 08/29	MT
Diethylphthalate		Ü	mg/L	EPA 8270		08/27 08/29	MT
4-Chlorophenyl-Phenylet	0.033	บ	mg/L	EPA 8270		08/27 08/29	MT
Fluorene	0.033	U	mg/L	EPA 8270		08/27 08/29	TM
4-Nitroaniline		Ü	mg/L	EPA 8270		08/27 08/29	TH
4,6-Dinitro-2-Methylphe n-Nitrosodiphenylamine	0.033	Ü	mg/L	EPA 8270		08/27 08/29	MT
4-Bromophenyl-Phenyleth		Ü	mg/L	EPA 8270		08/27 08/29	MT
Hexachlorobenzene	0.033	Ü	mg/L	EPA 8270		08/27 08/29	TM TM
Pentachlorophenol	0.033	IJ·	mg/L	EPA 8270		08/27 08/29 08/27 08/29	MI
Phenanthrene	0.033	U	mg/L	EPA 8270		08/27 08/29	MT
Anthracene	0.033	U	mg/L	EPA 8270		08/27 08/29	ΓM
di-n-Butylphthalate	0.033	U	mg/L	EPA 8270		08/27 08/29	ΓM
Fluoranthene	0.033	U	mg/L	EPA 8270		08/27 08/29	ΜT
Pyrene	0.033	U	mg/L	EPA 8270		08/27 08/29	ΜT
Butylbenzylphthalate	0.033	U	mg/L	EPA 8270		08/27 08/29	ΜT
3,3-Dichlorobenzidine	0.033		(b) mg/L	EPA 8270		08/27 08/29	MT
Benzo(a)Anthracene	0.033	Ü	mg/L	EPA 8270 EPA 8270		08/27 08/29	MS
Chrysene	0.033	Ü	mg/L	EPA 8270		08/27 08/29	M?
bis(2-Ethylhexyl)Phtha	1 0.033		mg/L	EPA 8270		08/27 08/29	<b>M</b> 5
di-n-Octylphthalate	0.033		mg/L	EPA 8270		08/27 08/29	MC
Benzo(b)Fluoranthene	0.033 0.033		mg/L mg/L	EPA 8270		08/27 08/29	MO
Benzo(k)Fluoranthene	0.033		mg/L	EPA 8270		08/27 08/29	Μr
Benzo(a)Pyrene			mg/L	EPA 8270		08/27 08/29	MT.
Indeno(1,2,3-cd)Pyrene	0.033		mg/L	EPA 8270		08/27 08/29	Μſ
Dibenz(a,h)Anthracene	0.033	_	mg/L	EPA 8270		08/27 08/29	W.
Benzo(g,h,i)Perylene	0.033	•	9, 2				
Total Metals Analysis				-			
ICP Screen, ICF				EPA	n/a	00 (00 00 (00	D
Aluminum	0.16	•	mg/L	EPA 6010		08/28 08/30	D
Antimony	0.1		mg/L	EPA 6010		08/28 08/30	D D
Arsenic	0.1	U	mg/L	EPA 6010		08/28 08/30 08/28 08/30	D
Barium	0.19		mg/L	EPA 6010		08/28 08/30	D
Beryllium	0.05		mg/L	EPA 6010		08/28 08/30	D
Cadmium	0.05		mg/L	EPA 6010		08/28 08/30	Ď
Calcium	170		mg/L	EPA 6010		08/28 08/30	D
Chromium	0.0		mg/L	EPA 6010	•	08/28 08/30	D
Cobalt	0.3		mg/L	EPA 6010 EPA 6010		08/28 08/30	Γ
Copper	0.0		mg/L	EPA 6010		08/28 08/30	Ľ
Iron	11		mg/L	EPA 6010		08/28 08/30	
Lead	0.	ı U	mg/L	MH OVA			





ENVIRONMENTAL LABORATORY SERVICES

ENVIRONMENTA	L LAUGHATON					
\$ 1-26 1918	ISIA COL RE	PORT of ANAL	LYSIS		5633 B ST	
Chemlab Ref.# :93.4303-6	ב בויוסדויו				ANCHORAGE, AK S	
Client Sample ID :BTR-AOGH		ty Career L			TEL: (907) 562 FAX: (907) 561	
Matrix :WATER	73 7	}			FAX. (907) 301	-500 .
nacrix (milan	T-SW01 Filter	5				Df (
Magnesium	721	I mg/L	EPA 6010		08/28 08/30	DC(
Manganese	0.070	mg/L	EPA 6010		08/28 08/30	DL(
Molybdenum	0.05		EPA 6010		08/28 08/30	DL(
Nickel		J mg/L	EPA 6010		08/28 08/30	DL(
Potassium	7.6	mg/L	EPA 6010		08/28 08/30	DL(
Selenium	0.1	J mg/L	EPA 6010		08/28 08/30	DL(
Silver		J mg/L	EPA 6010		08/28 08/30	DLC
Sodium	250	mg/L	EPA 6010		08/28 08/30	KAV
Thallium	0.005	U mg/L	EPA 7841		08/28 08/30	DLC
Vanadium	0.05	U mg/L	EPA 6010		08/28 08/30	DL(
Zinc	0.05	U mg/L	EPA 6010		08/28 08/30	אבוע
Dissolved Metals Analys		•	-			
ICP Screen, ICF			EPA	n/a	00/20 00/20	DL(
Aluminum	0.1	U mg/L	EPA 6010		08/28 08/30	DL(
Antimony	0.1	U mg/L	EPA 6010		08/28 08/30	DL(
Arsenic	0.1	U mg/L	EPA 6010		08/28 08/30	DL(
Barium	0.14	mg/L	EPA 6010		08/28 08/30	DL(
Beryllium	0.05	U mg/L	EPA 6010		08/28 08/30	DL(
Cadmium		U mg/L	EPA 6010		08/28 08/30 08/28 08/30	DL(
Calcium	160	mg/L	EPA 6010		08/28 08/30	DL(
Chromium		U mg/L	EPA 6010		08/28 08/30	
Cobalt		U mg/L	EPA 6010		08/28 08/30	Ec
Copper	****	U mg/L	EPA 6010		08/28 08/30	DLC
Iron	1.8	mg/L	EPA 6010 EPA 6010		08/28 08/30	DL(
Lead	~ ~ ~ ~	U mg/L	EPA 6010		08/28 08/30	DLC
Magnesium	75	mg/L	EPA 6010		08/28 08/30	DLC
Manganese	0.056	mg/L	EPA 6010		08/28 08/30	DL(
Molybdenum	• • • •	U mg/L	EPA 6010		08/28 08/30	DL(
Nickel		U mg/L	EPA 6010		08/28 08/30	DL(
Potassium	8.7	mg/L	EPA 6010		08/28 08/30	DLC
Selenium	0.1	mg/L	EPA 6010		08/28 08/30	DL(
Silver	0.05	mg/L	EPA 6010		08/28 08/30	DL
Sodium	320	mg/L	EPA 7841		08/28 08/30	KAI
Thallium		U mg/L U mg/L	EPA 6010		08/28 08/30	DL
Vanadium		U mg/L	EPA 6010		08/28 08/30	DL
Zinc	0.05	U IIIQ/L	LIA OUZ			
		(BEM)	EPA 9060	n/a		
TOC, Nonpurgable	32.6-37.0	BEAN mg/L	EPA 9060		09/02	CMI
TOC Range	34.0-31.0 34 K	5 (c.1) mg/L	EPA 9060		09/02	CM
TOC Concentration	74.0 /	/APM 11.71.94	/\			
Residue, Non-Filterable	51	J A mg/L	EPA 160.2		08/30 08/31	GP1
Residue, Filterable (TDS)	1800	J(A)mg/L	EPA 160.1	500	08/30 08/31	RJ
Keginne't ifrefante(109)	2000	- (,) -	/			
			/			
		/	In the charges			
		1	ille i	1/4/94	,	
		- 1	177 1 . A (	W 1 U 1		

See Special Instructions Above

UA = Unavailable

NA = Not Analyz

LT = Less Than

GT = Greater Than



^{**} See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-8

Client Sample ID :BTR-AOC10-SW01 DUPLICATE
Matrix :WATER SLF19
17545

Project#

PWSID

WORK Order :70013

Report Completed :09/30/93

Collected :08/21/93 @ 13:05 hr Received :08/24/93 @ 12:00 hr

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Technical Director: STEPHEN C. EDE

Released By :

Client Name :ICF KAISER ENGINEERING Ordered By Project Name

:RAY MORRIS :DEW LINE :BARTER

:UA

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini [.]
Total Metals Analysis								
ICP Screen. ICF				EPA				
Aluminum	0.14		mg/L		n/a	00.400	00.400	
Antimony	0.1	IJ	mg/L	EPA 6010			08/30	DL(
Arsenic	0.1	ij	mg/L	EPA 6010			08/30	DL(
Barium	0.19	J	mg/L	EPA 6010 EPA 6010			08/30	DLC
Beryllium	0.05	U	mg/L				08/30	DLC
Cadmium	0.05	Ü	mg/L	EPA 6010			08/30	DLC
Calcium	170	O	mg/L	EPA 6010			08/30	DLC
Chromium	0.05	U	mg/L	EPA 6010			08/30	DLC
Cobalt	0.1	Ω.	mg/L	EPA 6010			08/30	DLC
Copper	0.05	Ü		EPA 6010			08/30	DLC
Iron	18	J	mg/L	EPA 6010		08/28		DLC
Lead	0.1	U	mg/L	EPA 6010		08/28		DLC
Magnesium	71	U	mg/L	EPA 6010		08/28		DLC
Manganese	0.069		mg/L	EPA 6010		08/28		DLC
Molybdenum	0.05	U	mg/L	EPA 6010		08/28		DLG
Nickel	0.05	Ü	mg/L	EPA 6010		08/28		DLC
Potassium	7.2	U	mg/L	EPA 6010		08/28		DLG
Selenium	0.1	U	mg/L	EPA 6010		08/28		DLG
Silver	0.05	Ü	mg/L	EPA 6010		08/28		DLG
Sodium	250	U	mg/L	EPA 6010		08/28		DLG
Thallium	0.0050	Ü	mg/L	EPA 6010		08/28		DLG
Vanadium	0.0030	Ü	mg/L	EPA 7841		08/28		KAW
Zinc	0.05	11	mg/L	EPA 6010		08/28		DLG
<u>-</u>	0.05	U	mg/L	EPA 6010		08/28	08/30	DLG
Dissolved Metals Analys								
ICP Screen, ICF				EPA	- /-			
Aluminum	0.1	U	mg/L	EPA 6010	n/a	00.720	00 (20	25.6
Antimony	0.1	Ü	mg/L	EPA 6010		08/28		D <b>LG</b>
Arsenic	0.1	Ü	mg/L			08/28		DLG
Barium	0.14	0	mg/L	EPA 6010		08/28		DLG
Beryllium	0.05	U	_	EPA 6010		08/28		DLG
Cadmium	0.05	Ü	mg/L mg/L	EPA 6010		08/28		DLG
Calcium	160	Ü		EPA 6010		08/28		DLG
Chromium	0.05	Ū	mg/L	EPA 6010		08/28		DLG
Cobalt	0.03	Ü	mg/L	EPA 6010		08/28		DLG
Copper	0.05	Ü	mg/L	EPA 6010		08/28		DLG
	0.03	U	mg/L	EPA 6010		08/28	08/30	DLG



ENVIRONMENTAL LABORATORY SERVICES

5 N 2 E   9 T B		REP	ORT of ANA	LYSTS			V
Chemlab Ref.# :93.4	303-8					56 <b>33</b> B S	
		LIC	ATE.			ANCHORAGE. AI TEL: (907) 5	
Matrix :WATE	D LF19					FAX: (907) 5	
	" Suf 12.5.95						
Iron	1.8		mg/L	EPA 6010	•	08/28 08/30	DĹ
Lead	0.1	U	mg/L	EPA 6010		08/28 08/30	
Magnesium	74	U	_				DL
Manganese	0.056		mg/L	EPA 6010		08/28 08/30	DL
Molybdenum			mg/L	EPA 6010		08/28 08/30	D <b>L</b>
Nickel	0.05	Ŭ	mg/L	EPA 6010		08/28 08/30	DL
	0.05	U	mg/L	EPA 6010		08/28 08/30	DL
Potassium	8.2		mg/L	EPA 6010		08/28 08/30	DL
Selenium	0.1	U	mg/L	EPA 6010		08/28 08/30	DL
Silver	0.05	U	mg/L	EPA 6010		08/28 08/30	DL:
Sodium	290		mg/L -	EPA 6010		08/28 08/30	DL(
Thallium	0.0050	U	mg/L	EPA 7841		08/28 08/30	KAI
Vanadium	0.05	U	mq/L	EPA 6010		08/28 08/30	DL(
Zinc	0.05	Ū	mg/L	EPA 6010		08/28 08/30	DL(
	3.05	J	g/ L	LIA OUIU		00/20 00/30	ישוני
TOC, Nonpurgable				EPA 9060	n/a		
TOC Range	31.3-34.3		mæ /[		11/ d	00.402	aut
TOC Concentration	33.2		mg/L	EPA 9060		09/02	CMI
too concentration	33.2		mg/L	EPA 9060		09/02	CMF

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



**SGS** Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

:93.4303-7

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518

Client Sample ID :BTR-AOC10-SW01 SPIKE Matrix :WATER LFIG SW1 12-5-95

TEL: (907) 562-2343 FAX: (907) 561-5301

WORK Order :70013

Client Name :ICF KAISER ENGINEERING :RAY MORRIS

Report Completed :09/30/93

Ordered By Project Name :DEW LINE Project# :BARTER PWSID :UA

Collected :08/21/93 @ 13:05 hr Received :08/24/93 @ 12:00

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. 4-NITROPHENOL AND

PENTACHLOROPHENOL ARE OUTSIDE QC LIMITS DUE TO MATRIX INTERFERENCE.

FOR SPIKE & SPIKE DUPLICATE RECOVERIES & RPD SEE QC SUMMARY.

Parameter	QC Results Qua	l Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics			EPA 8260				
Benzene	0.0099	mg/L	EPA 8260		09/02	09/02	KWP
Bromobenzene	0.0010 U	mg/L	EPA 8260			09/02	KWI
Bromochloromethane	0.0010 U	mg/L	EPA 8260			09/02	KWi
Bromodichloromethane	0.0010 U	mg/L	EPA 8260			09/02	KWŁ
Bromoform	0.0010 U	mg/L	EPA 8260			09/02	KWY
Bromomethane	0. <b>001</b> 0 U	mg/L	EPA 8260			09/02	••••
n-Butylbenzene	0.0010 U	mg/L	EPA 8260			09/07	
sec-Butylbenzene	0.0010 U	mg/L	EPA 8260			09/0.	.WE
tert-Butylbenzne	0.0010 U	mg/L	EPA 8260			09/02	KWM
Carbon Tetrachloride	0.0010 U	mg/L	EPA 8260			09/02	KWM
Chlorobenzene	0.010	mg/L	EPA 8260			09/02	KWM
Chloroethane	0.0010 U	mg/L	EPA 8260			09/02	KWM
Chloroform	0.0010 U	mg/L	EPA 8260			09/02	KWM
Chloromethane	0.0010 U	mg/L	EPA 8260			09/02	KWM
2-Chlorotoluene	0.0010 ប	mg/L	EPA 8260			09/02	KWM
4-Chlorotoluene	0.0010 U	mg/L	EPA 8260			09/02	KWM
Dibromochloromethane	0.0010 U	mg/L	EPA 8260			09/02	KWM
12Dibromo3Chloropropane	0.0010 U	mg/L	EPA 8260			09/02	KWM
1,2-Dibromoethane	0.0010 U	mg/L	EPA 8260			09/02	KWM
Dibromomethane	0.0010 U	mg/L	EPA 8260			09/02	KWM
1,2-Dichlorobenzene	0.0010 U	mg/L	EPA 8260		09/02		KWM
1,3-Dichlorobenzene	0.0010 U	mg/L	EPA 8260		09/02		KWM
1,4-Dichlorobenzene	0 <b>.0010</b> U	mg/L	EPA 8260		09/02		KWM
Dichlorodifluoromethane	0 <b>.0010</b> U	mg/L	EPA 8260		09/02		KWM
1,1-Dichloroethane	0.0010 ប	mg/L	EPA 8260		09/02		KWM
1,2-Dichloroethane	0.0069	mg/L	EPA 8260		09/02		KWM
1.1-Dichloroethene	0.0080	mg/L	EPA 8260		09/02		KWM
cis-1,2-Dichloroethene	0.0010 U	mg/L	EPA 8260		09/02	•	KWM
trans1,2-Dichloroethene	0.0010 U	mg/L	EPA 8260		09/02		KWM
1,2-Dichloropropane	0.0010 U	mg/L	EPA 8260		09/02		KWM
1,3-Dichloropropane	0.0010 U	mg/L	EPA 8260		09/02		KWM
2,2-Dichloropropane	0.0010 U	mg/L	EPA 8260		09/02		KWM
1,1-Dichloropropene	០.0010 ប	mg/L	EPA 8260		09/02		KWM
Ethylbenzene	0.0010 U	mg/L	EPA 8260		09/02		KWM
Hexachlorobutadiene	0.0010 U	mg/L	EPA 8260		09/02		KWM
		<b>2</b> . –			,	,	•••••



ENVIRONMENTAL LABORATORY SERVICES

REFORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4303-7 ANCHORAGE, AK 99513 Client Sample ID :BTR-AOCIO-SW01 :WATER FIN SPIKE TEL: (907) 562-2343 Matrix FAX: (907) 561-5301 SW 12375 Isopropylbenzene 0.0010 U mq/L EPA 8260 09/02 09/02 KWM p-Isopropyltoluene 0.0010 U EPA 8260 09/02 09/02 KWM mg/L Methylene Chloride 0.0010 U EPA 8260 09/02 09/02 KWM mg/L Napthalene 0.0010 U EPA 8260 mg/L 09/02 09/02 KWM n-Propylbenzene 0.0010 H EPA 8260 KWM mg/L 09/02 09/02 Styrene 0.0010 U mg/L EPA 8260 09/02 09/02 KWM 1112-Tetrachloroethane 0.0010 U mg/L EPA 8260 09/02 09/02 KWM 1122-Tetrachloroethane 0.0010 U mq/L EPA 8260 09/02 09/02 KWM Tetrachloroethene 0.0010 EPA 8260 09/02 09/02 KWM mg/L Toluene 0.010 EPA 8260 09/02 09/02 mg/L KWM 1,2,3-Trichlorobenzene 0.0010 U EPA 8260 mg/L 09/02 09/02 KWM 1,2,4-Trichlorobenzene 0.0010 U EPA 8260 mg/L 09/02 09/02 KWM 1,1,1-Trichloroethane 0.0010 U EPA 8260 KWM mg/L 09/02 09/02 1,1,2-Trichloroethane 0.0010 Ħ mg/L EPA 8260 09/02 09/02 KWM Trichloroethene 0.0087 mg/L EPA 8260 09/02 09/02 KWM Trichlorofluoromethane 0.0010 U mg/L EPA 8260 09/02 09/02 KWM 1,2,3-Trichloropropane 0.0010 09/02 09/02 EPA 8260 mg/L KWM 1,2,4-Trimethylbenzene 0.0010 11 EPA 8260 mg/L 09/02 09/02 KWM 1,3,5-Trimethylbenzene 0.0010 11 EPA 8260 09/02 09/02 mg/L KWM Vinyl Chloride 0.0010 mg/L EPA 8260 09/02 09/02 KWM p+m-Xylene 0.0010 mg/L EPA 8260 09/02 09/02 KWM o-Xylene 0.0010 09/02 09/02 IJ mg/L EPA 8260 KWM Semivolatile Organics EPA 8270 Phenol 0.138 mg/L EPA 8270 08/27 08/29 MTT bis(2-Chloroethyl)ether 0.033 mg/L EPA 8270 08/27 08/29 MTT 2-Chlorophenol 0.142 mg/L EPA 8270 08/27 08/29 MTT 1,3-Dichlorobenzene 0.033 U EPA 8270 08/27 08/29 MTT mg/L 1,4-Dichlorobenzene 0.192 mg/L EPA 8270 08/27 08/29 MTT Benzyl Alcohol 0.033 U mg/L EPA 8270 08/27 08/29 MTT 1,2-Dichlorobenzene 0.033 U EPA 8270 mg/L 08/27 08/29 MTT 2-Methylphenol 0.033 U EPA 8270 08/27 08/29 mg/L MTT bis(2-Chloroisopropyl)e 0.033 U EPA 8270 08/27 08/29 mg/L MTT 4-Methylphenol 0.033 IJ EPA 8270 08/27 08/29 mq/L MTT n-Nitroso-di-n-Propylam 0.243 mq/L EPA 8270 08/27 08/29 MTT Hexachloroethane 0.033 U mg/L EFA 8270 08/27 08/29 MTT Nitrobenzene 0.033 U EPA 8270 08/27 08/29 mg/L MTT Isophorone 0.033 U EPA 8270 08/27 08/29 mg/L MTT 2-Nitrophenol 0.033 U mg/L EPA 8270 08/27 08/29 MTT 2,4-Dimethylphenol 0.033 U mg/L EPA 8270 08/27 08/29 MTT Benzoic Acid 0.033 U mg/L EPA 8270 08/27 08/29 MTT bis(2-Chloroethoxy)Meth 0.033 U mg/L EPA 8270 08/27 08/29 MTT 2,4-Dichlorophenol 0.033 U mg/L EPA 8270 08/27 08/29 MTT 1,2,4-Trichlorobenzene 0.213 EPA 8270 08/27 08/29 mg/L MTT Naphthalene 0.033 11 mg/L EPA 8270 08/27 08/29 MTT 4-Chloroaniline 0.033 U mg/L EPA 8270 08/27 08/29 MTT Hexachlorobutadiene 0.033 U mg/L EPA 8270 08/27 08/29 MTT 4-Chloro-3-Methylphenol 0.215 08/27 08/29 mg/L EPA 8270 MTT 2-Methylnaphthalene 0.033 U mq/L EPA 8270 08/27 08/29 MTT Hexachlorocyclopentadie 0.033 U EPA 8270 08/27 08/29 MTT mg/L 2,4,6-Trichlorophenol 0.033 IJ mg/L EPA 8270 08/27 08/29



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4303-7 5633 8 STREET Client Sample ID :BTR-AOC10-SW01
Matrix :WATER LF19 ANCHORAGE, AK 99518 SPIKE TEL: (907) 562-2343 FAX: (907) 561-5301 2,4,5-Trichlorophenol 0.033 H mg/L EPA 8270 08/27 08/29 MT. 2-Chloronaphthalene 0.033 U mg/L EPA 8270 08/27 08/29 MT. 2-Nitroaniline 0.033 H mq/L EPA 8270 08/27 08/29 MT. Dimethylphthalate 0.033 U mq/L EPA 8270 08/27 08/29 MTI Acenaphthylene 0.033 U EPA 8270 mq/L 08/27 08/29 MTI 2,6-Dinitrotoluene 0.033 U EPA 8270 mg/L 08/27 08/29 MTI 3-Nitroaniline 0.033 mg/L EPA 8270 08/27 08/29 MTI Acenaphthene 0.244 mg/L EPA 8270 08/27 08/29 MTI 2,4-Dinitrophenol 0.033 H mg/L EPA 8270 08/27 08/29 MTT 4-Nitrophenol 0.0028 J mg/L _ EPA 8270 08/27 08/29 MTI Dibenzofuran 0.033 U mq/L EPA 8270 08/27 08/29 MTT 2,4-Dinitrotoluene 0.244 ma/L EPA 8270 08/27 08/29 MTI Diethylphthalate 0.033 U EPA 8270 mq/L 08/27 08/29 MTT 4-Chlorophenyl-Phenylet 0.033 U EPA 8270 mg/L 08/27 08/29 MTI Fluorene 0.033 EPA 8270 mg/L 08/27 08/29 MTT 4-Nitroaniline 0.033 EPA 8270 mq/L 08/27 08/29 MTT 4,6-Dinitro-2-Methylphe 0.033 U mg/L EPA 8270 08/27 08/29 MTT n-Nitrosodiphenylamine 0.033 U mg/L EPA 8270 08/27 08/29 MTT 4-Bromophenyl-Phenyleth 0.033 [] mg/L EPA 8270 08/27 08/29 MTT Hexachlorobenzene 0.033 U mg/L EPA 8270 08/27 08/29 MTT Pentachlorophenol 0.0041 J **EPA** 8270 mg/L 08/27 08/29 MTT Phenanthrene 0.033 U mq/L EPA 8270 08/27 08/29 MTT Anthracene 0.033 U mq/L EPA 8270 08/27 08/29 MTT di-n-Butylphthalate 0.295 **EPA** 8270 mg/L 08/27 08/29 MTT Fluoranthene 0.033 U **EPA** 8270 mg/L 08/27 08/29 MTT Pyrene 0.254 EPA 8270 mg/L 08/27 08/29 M Butylbenzylphthalate 0.033 U EPA 8270 mg/L 08/27 08/29 MTT 3,3-Dichlorobenzidine 0.033 H mg/L EPA 8270 08/27 08/29 MTT Benzo(a)Anthracene 0.033 11 mg/L EPA 8270 08/27 08/29 MTT Chrysene 0.033 [ ] mg/L **EPA** 8270 08/27 08/29 MTT bis(2-Ethylhexyl)Phthal 0.033 U mg/L EPA 8270 08/27 08/29 MTT di-n-Octylphthalate 0.033 [] mg/L EPA 8270 08/27 08/29 MTT Benzo(b)Fluoranthene 0.033 IJ mg/L **EPA** 8270 08/27 08/29 MTT Benzo(k)Fluoranthene 0.033 U mq/L EPA 8270 08/27 08/29 MTT Benzo(a)Pyrene 0.033 U ma/L EPA 8270 08/27 08/29 MTT Indeno(1,2,3-cd)Pyrene 0.033 U mq/L EPA 8270 08/27 08/29 MTT Dibenz(a,h)Anthracene 0.033 U mq/L EPA 8270 08/27 08/29 MTT Benzo(g,h,i)Perylene 0.033 U EPA 8270 mq/L 08/27 08/29 MTT Total Metals Analysis ICP Screen, ICF **EPA** n/a Aluminum 1.06 mg/L EPA 6010 DLG 08/28 08/30 Antimony 0.82 mq/L EPA 6010 08/28 08/30 DLG Arsenic 0.97 mg/L EPA 6010 08/28 08/30 DLG Barium 1.16 mg/L EPA 6010 08/28 08/30 DLG Beryllium 0.38 mq/L **EPA** 6010 08/28 08/30 DLG Cadmium 0.47 mg/L EPA 6010 08/28 08/30 DLG Calcium 275 mg/L EPA 6010 08/28 08/30 DLG Chromium 0.95 mg/L EPA 6010 08/28 08/30 DLG Cobalt 0.91 mg/L EPA 6010 08/28 08/30 DLG Copper 0.92 mg/L EPA 6010 08/28 08/30 DLG





ENVIRONMENTAL LABORATORY SERVICES

REFORT of ANALYSIS 5633 B STREET Chemlab Ref.= :93.4303-7 ANCHORAGE, AK 99518 Client Sample ID :BTR-A<del>OC10</del>-SW01 TEL: (907) 562-2343 SPIKE : WATER LF19. FAX: (907) 561-5301 onf 125.75 Iron 301 08/28 08/30 DL mg/L EPA 6010 Lead DL: 0.93 08/28 08/30 mg/L EPA 6010 Magnesium DL: 08/28 08/30 181 mg/L EPA 6010 Manganese DL 1.01 EPA 6010 08/28 08/30 mg/L Molybdenum 0.94 08/28 08/30 DL( mg/L EPA 6010 Nickel 0.94 08/28 08/30 DL( EPA 6010 mg/L Potassium 15.5 08/28 08/30 DL( EPA 6010 mg/L Selenium 0.91 08/28 08/30 DL( EPA 6010 mg/L Silver 08/28 08/30 DL( 0.15 EPA 6010 mg/L Sodium 369 08/28 08/30 DLC EPA 6010 mg/L -Thallium 0.016 08/28 08/30 KAF EPA 7841 mg/L Vanadium 0.90 DLC 08/28 08/30 EPA 6010 ma/L Zinc 0.94 08/28 08/30 DLC mg/L EPA 6010 Dissolved Metals Analys ICP Screen. ICF **EPA** n/a Aluminum 1.04 EPA 6010 08/28 08/30 DLC mq/L Antimony 0.81 mg/L EPA 6010 08/28 08/30 DLC Arsenic 0.93 08/28 08/30 DLC mg/L EPA 6010 Barium DLC 1.13 mg/L EPA 6010 08/28 08/30 Beryllium 08/28 08/30 0.37 DLG mg/L **EPA** 6010 Cadmium 0.44 08/28 08/30 DLG EPA 6010 mg/L Calcium 255 EPA 6010 08/28 08/30 G mg/L Chromium JLG 0.91 mg/L EPA 6010 08/28 08/30 Cobalt 0.89 EPA 6010 08/28 08/30 DLG mq/L Copper 08/28 08/30 0.97 mq/L EPA 6010 DLG Iron 2.70 mg/L EPA 6010 08/28 08/30 DLG Lead 08/28 08/30 0.89 EPA 6010 DLG mg/L Magnesium EPA 6010 178 08/28 08/30 DLG mg/L Manganese 0.98 08/28 08/30 DLG EPA 6010 mg/L Molybdenum 0.91 08/28 08/30 DLG mg/L EPA 6010 Nickel 0.90 08/28 08/30 DLG mg/L EPA 6010 Potassium 182 mq/L EPA 6010 08/28 08/30 DLG Selenium 0.91 mq/L EPA 6010 08/28 08/30 DLG Silver 0.15 08/28 08/30 DLG mg/L EPA 6010 Sodium 409 EPA 6010 08/28 08/30 DLG mg/L Thallium 0.015 08/28 08/30 KAW EPA 7841 mg/L Vanadium 0.88 08/28 08/30 DLG mg/L EPA 6010 Zinc 0.95 08/28 08/30 DLG EPA 6010 mg/L TOC, Nonpurgable EPA 9060 n/a ...TOC Range 50.3-51.5 09/02 CMR mg/L EPA 9060 ...TOC Concentration 50.7 09/02 CMR mq/L EPA 9060

U = Undetected. Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyze

LT = Less Than

GT = Greater Than



SSS Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above

See Sample Remarks Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4303-10

Client Sample ID :BTR-A<del>OC10</del>-SW01 SPIKE DUPLICATE

:WATER LF19

12.595

Ordered By Project Name

:RAY MORRIS

Project# PWSID

Client Name

:BARTER

:UA

:ICF KAISER ENGINEERING

:DEW LINE

WORK Order

:70013 Report Completed :09/30/93

Collected Received

:08/21/93 @ 13:05 :08/24/93 @ 12:00

5633 B STREET

hrs

hrs

ANCHORAGE, AK 99515

TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN C. EDE Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G. 8270: SAMPLE HAS BEEN

SPIKED. PENTACHLOROPHENOL IS OUTSIDE Q/C LIMITS DUE TO MATRIX INTERFERENCE. 8260: FOR MS/MSD RECOVERIES & RPD SEE Q/C SUMMARY. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE

ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.010		mg/L	EPA 8260		09/02	09/02	KWM
Bromobenzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
Bromochloromethane	0.0010	U	mg/L	EPA 8260			09/02	KWM
Bromodichloromethane	0.0010	U	mg/L	EPA 8260			09/02	KWM
Bromoform	0.0010	U	mg/L	EPA 8260			09/02	KWM
Bromomethane	0.0010	U	mg/L	EPA 8260			09/02	KWM
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		,	09/02	KWM
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260			09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chlorobenzene	0.011		mg/L	EPA 8260			09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chloroform	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260			09/02	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260			09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260			09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA 8260			09/02	KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260			09/02	KWM
1,2-Dibromoethane	0.0010	Ŭ	mg/L	EPA 8260			09/02	KWM
Dibromomethane	0.0010	Ü	mg/L	EPA 8260		-	09/02	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02		KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,2-Dichloroethane	0.0066		mg/L	EPA 8260		09/02		KWM
1,1-Dichloroethene	0.0079		mg/L	EPA 8260		09/02		KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02		KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02		KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	•	KWM
1,1-Dichloropropene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM



ENVIRONMENTAL LABORATORY SERVICES



5 1-18 1908				
Chemlab Ref.# :93.4303	REF	ORT OF ANA	LYSIS	56 <b>33 B STREET</b>
Chemlab Ref.# :93.4303- Client Sample ID :BTR-AOC				ANCHORAGE, AK 99518
Matrix :WATER LF	IU-SWUI SPIKE I	UPLICATE		TEL: (907) 562-2343
Matrix :WATER LA	and -			FAX: (907) 561-5301
	12.5.43			
Ethylbenzene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KW
Hexachlorobutadiene	0.0010 U	mg/L	EPA 8260	09/02 09/ <b>0</b> 2 KWI
Isopropylbenzene	0. <b>0010</b> U	mg/L	EPA 8260	09/02 09/02 KWI
p-Isopropyltoluene	0.0010 U	mg/L	EPA 8260	09/02 09/ <b>02</b> K <b>W</b> I
Methylene Chloride	0.0010 U	mg/L	EPA 8260	09/02 09/ <b>02</b> K <b>W</b> t
Napthalene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWI
n-Propylbenzene	0 <b>.001</b> 0 U	mg/L	EPA 8260	09/02 09/ <b>02</b> KWI
Styrene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWI
1112-Tetrachloroethane	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWF
_ 1122-Tetrachloroethane	0.0010 U	mg/L →	EPA 8260	09/02 09/02 KWI
Tetrachloroethene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWM
Toluene	0.011	mg/L	EPA 8260	09/02 09/02 KWM
1,2,3-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWM
1,2,4-Trichlorobenzene	0.0010 U	ng/L	EPA 8260	09/02 09/02 KWM
1,1,1-Trichloroethane	0.0010 U	mg/L	EPA 8260	•
1,1,2-Trichloroethane	0.0010 U	mg/L	EPA 8260	
Trichloroethene	0.0010		EPA 8260	09/02 09/02 KWM
Trichlorofluoromethane		mg/L		09/02 09/02 KWM
1,2,3-Trichloropropane		mg/L	EPA 8260	09/02 09/ <b>02</b> KWM
1,2,4-Trimethylbenzene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWM
1,3,5-Trimethylbenzene	0.0010 U	mg/L	EPA 8260	09/02 09/ <b>02</b> KWM
Vinyl Chloride	0.0010 U	mg/L	EPA 8260	09/02 09/ <b>02</b> K <b>WM</b>
p+m-Xylene	0.0010 U	mg/L	EPA 8260	09/02 09/02
	0.0010 U	mg/L	EPA 8260	09/02 09/02
o-Xylene	0.0010 U	mg/L	EPA 8260	09/02 09/02 KWM
Seminolatile O				
Semivolatile Organics Phenol	0.040		EPA 8270	
	0.240	mg/L	EPA 8270	08/27 08/29 MTT
bis(2-Chloroethyl)ether	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
2-Chlorophenol	0.263	mg/L	EPA 8270	08/27 08/29 MTT
1,3-Dichlorobenzene	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
1,4-Dichlorobenzene	0.194	mg/L	EPA 8270	08/27 08/29 MTT
Benzyl Alcohol	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
1,2-Dichlorobenzene	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
2-Methylphenol	0. <b>042</b> U	m <b>g/L</b>	EPA 8270	08/27 08/29 MTT
bis(2-Chloroisopropyl)e	0. <b>042</b> U	mg/L	EPA 8270	08/27 08/29 MTT
4-Methylphenol	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
n-Nitroso-di-n-Propylam	0.287	mg/L	EPA 8270	08/27 08/29 MTT
Hexachloroethane	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
Nitrobenzene	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
Isophorone	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
2-Nitrophenol	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
2,4-Dimethylphenol	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
Benzoic Acid	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
bis(2-Chloroethoxy)Meth	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
2,4-Dichlorophenol	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
1,2,4-Trichlorobenzene	0.221	mg/L	EPA 8270	08/27 08/29 MTT
Naphthalene	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
4-Chloroaniline	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
Hexachlorobutadiene	0.042 U	mg/L	EPA 8270	08/27 08/29 MTT
4-Chloro-3-Methylphenol	0.324	mg/L	EPA 8270	08/27 08/29
2-Methylnaphthalene	0.042 U	mg/L	EPA 8270	08/27 08/29
a many or accommentation	J. U 12 U	g/ L	LA CEN	00/21 00/29
				_



Anthracene

Pyrene

Chrysene

Fluoranthene

di-n-Butylphthalate

Butylbenzylphthalate

Benzo(a)Anthracene

di-n-Octylphthalate

Benzo(b)Fluoranthene

Benzo(k)Fluoranthene

Indeno(1,2,3-cd)Pyrene

Dibenz(a,h)Anthracene

Benzo(g,h,i)Perylene

Benzo(a)Pyrene

3,3-Dichlorobenzidine

bis(2-Ethylhexyl)Phthal

### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4303-10 ANCHORAGE, AK 99518 Client Sample ID :BTR-AOC10-SW01 SPIKE DUPLICATE
Matrix :WATER 500 TEL: (907) 562-2343 FAX: (907) 561-5301 Hexachlorocyclopentadie 0.042 П mg/L EPA 8270 08/27 08/29 MTT 2,4,6-Trichlorophenol 0.042 11 mg/L EPA 8270 08/27 08/29 MTI 2,4,5-Trichlorophenol 0.042 П EPA 8270 mg/L 08/27 08/29 MTT 2-Chloronaphthalene 0.042 [] mg/L EPA 8270 08/27 08/29 MTT 2-Nitroaniline 0.042 U mg/L EPA 8270 08/27 08/29 MTT Dimethylphthalate 0.042 U mq/L EPA 8270 08/27 08/29 MTT Acenaphthylene 0.042 U EPA 8270 mg/L 08/27 08/29 MTT 2,6-Dinitrotoluene 0.042 11 EPA 8270 mg/L 08/27 08/29 MTT 3-Nitroaniline 0.042 U mg/L EPA 8270 08/27 08/29 MTT Acenaphthene 0.278 EPA 8270 mg/L -08/27 08/29 MTT 2,4-Dinitrophenol 0.042 U mg/L EPA 8270 08/27 08/29 MTT 4-Nitrophenol 0.133 EPA 8270 mq/L 08/27 08/29 MTT Dibenzofuran 0.042 U mg/L EPA 8270 08/27 08/29 MTT 2,4-Dinitrotoluene 0.300 mg/L EPA 8270 08/27 08/29 MTT Diethylphthalate 0.042 mg/L EPA 8270 08/27 08/29 MTT 4-Chlorophenyl-Phenylet 0.042 U mq/L EPA 8270 08/27 08/29 MTT Fluorene 0.042 U ma/L EPA 8270 08/27 08/29 MTT 4-Nitroaniline 0.042 Ü mq/L EPA 8270 08/27 08/29 MTT 4,6-Dinitro-2-Methylphe 0.042 U EPA 8270 mg/L 08/27 08/29 MTT n-Nitrosodiphenylamine 0.042 U EPA 8270 mq/L 08/27 08/29 MTT 4-Bromophenyl-Phenyleth 0.042 H mg/L EPA 8270 08/27 08/29 MTT Hexachlorobenzene 0.042 U mg/L EPA 8270 08/27 08/29 MTT Pentachlorophenol 0.0267 J mg/L. EPA 8270 08/27 08/29 MTT Phenanthrene 0.042 U mq/L EPA 8270 08/27 08/29 MTT

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**EPA** 8270

See Special Instructions Above

See Sample Remarks Above Undetected, Reported value is the practical quantification limit.

0.042

0.184

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0.310

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NA = Not AnalyzedLT = Less Than GT = Greater Than

UA = Unavailable

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D = Secondary dilution.



	LF19	LF19	LF19	LF19	LF19
ICF ID	BTR- <del>A0C10</del> -S01	BTR- <del>A0C10</del> -S02	BTR- <del>A0610</del> -S03	BTR- <del>A0C10</del> -S04	BTR- <del>A0C10</del> -S05
F&BI Number	353	355	357	359	361
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	97	93	98	94	41
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93
Leaded Gas					
JP-4	< 50	< 50	< 50	< 50	< 120
Lube Oil	< 100	< 100	< 100	< 100	1600
Diesel	<50丁	<50₺	<50J	<50 プ	<120 ゴ
Spike Level	1000	1000			
Unknown Semi-volatile					
Pentacosane	92	103	110	95	102
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93	#6-08/23/93
PCB 1221	#0-00/25/55 < 0.5	< 0.5	< 0.5	< 0.5	<0.5 ∠ 1.20
PCB 1232	< 0.5	< 0.5 < 0.5	< 0.5	< 0.5	<0.5
				< 0.5 < 0.5	< 0.5
PCB 1016	< 0.5	< 0.5	< 0.5		1
PCB 1242	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
PCB 1248	< 0.5	< 0.5	< 0.5	< 0.5	<del>≤8.5</del>
PCB 1254	< 0.5	< 0.5	< 0.5	< 0.5	<.8.5*
PCB 1260	< 0.5	< 0.5	< 0.5	< 0.5	≤8.5 ↓
Spike Level					
Dibutyl Chlorendate	106	96	91	88	120
Sequence Date	#6-08/23/93			#6-08/23/93	
alpha-BHC	<0.02 丁			<0.02 丁	
beta-BHC	< 0.02			< 0.02	
gamma-BHC	< 0.02			< 0.02	
delta-BHC	< 0.02			< 0.02	
Heptachlor	< 0.02			< 0.02	
Aldrin	< 0.02			< 0.02	
Heptachlor Epoxide	< 0.02			< 0.02	
Endosulfan I	< 0.02			< 0.02	
DDE	< 0.02			< 0.02	
Dieldrin	< 0.02			< 0.02	
Endrin	< 0.02			< 0.02	
Endosulfan II	< 0.02			< 0.02	
DDD	< 0.02			< 0.02	
Endrin Aldehyde	< 0.02			< 0.02	
DDT	< 0.02			< 0.02	
Endosulfan Sulfate	< 0.02			< 0.02	
Endrin Ketone	< 0.02 ₩			<0.02 ₩	
Methoxy Chlor	<del>≤0.1°</del> ∠0.5	J		< <del>0.1</del> <0.5	J
Chlordane	<0.5 丁			<0.5ブ	
Dibutyl Chlorendate	96			88	
Spike Level					
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93
CCI4	< 0.02 R	< 0.02	< 0.02	< 0.02	< 0.05
TCA	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05
Benzene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05
TCE	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05
Toluene	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05
PCE	< 0.02	< 0.02	< 0.02	< 0.02	< 0.05
Ethylbenzene	0.06	< <del>0.82</del> 40.8	≤ <del>0.02</del> ∠0.2	< <del>0.82</del> 40.5	< <del>0.05</del> <0.2
Xylenes	<0.04√	< <del>0.84</del> ∠1.3	=		t <8.7 <0.5
Gasoline	32-4465	<2 485	42155		_
Spike level	- 104	- •			
BFB	100	100	101	102	103

11:11.08/11

ICF ID	LF19	LF19	LI ⁷ 19	LF19	LF19
F&BI Number	BTR- <del>A0C10</del> -S06 363	BTR- <del>A0C10</del> -2S06-1.5 1698	BTR- <del>A0C10</del> -2S07 1700	BTR- <del>A0C10</del> -2S08 1702	BTR- <del>A0C10</del> -2S09 1704
Sample Type Date Received	soil	soil	soil	soil	soil
	8/23/93 93	9/2/93	9/2/93 86	9/2/93	9/2/93
% Dry Weight Sequence Date		47		94	92
Leaded Gas	#6-08/23/93	#5-09/05/93	#5-09/05/93	#5-09/05/93	<b>#5-0</b> 9/05/93
JP-4	< 50	~ 100	~ CO	< 50	~ E0
Lube Oil	< 100	< 100	< 60		< 50
Diesel		< 200	< 120	< 100	< 100
	<50 ₮	<100丁	< 60 J	<50 ブ	<50 丁
Spike Level Unknown Semi-volatile					
	102	70	04	00	ro
Pentacosane Seguence Data	103	75	64	90	50
Sequence Date PCB 1221	#6-08/23/93				
PCB 1232	< 0.5 < 0.5				
PCB 1016	< 0.5 < 0.5				
PCB 1242	< 0.5 < 0.5				
PCB 1242					
PCB 1254	< 0.5 < 0.5				
PCB 1254 PCB 1260					
Spike Level	< 0.5				
Dibutyl Chlorendate	90				
Sequence Date	50				
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan i					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/24/93	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93	#3&4-09/06/93
CCI4	< 0.02	< 0.2	< 0.1	<0.1	< 0.1
TCA	< 0.02	< 0.2	< 0.1	< 0.1	< 0.1 < 0.1
Benzene	< 0.02	< 0.04	< 0.02	< 0.02	< 0.02
TCE	< 0.02	< 0.2	< 0.1	< 0.1	< 0.1
Toluene	< 0.02	< 0.04	< 0.02	< 0.02	< 0.02
PCE	< 0.02	< 0.2	< 0.1	< 0.1	< 0.1
Ethylbenzene	< <del>0.02</del> L0.07		< 0.02	< 0.02	< 0.02
Xylenes	< 0.04-Lo.5	< 0.08	< 0.02	< 0.02 < 0.04	< 0.04
Gasoline	<2J	22 丁	<1-L2J	<1-L2J	
Spike level	764	<i>LL</i> <b>=</b>	X I ~~~	>T & Z & Z	×1 ~ < J
BFB	105	96	102	112	91
-• <del>-</del>	100	30	102	112	JI

11.11. 2 Mg

	LF19	LF19	LF9
ICF ID	BTR- <del>A0C10</del> -SD01	BTR- <del>AOC10</del> -2SD02	BTR- <del>A0C10</del> -SW01
F&BI Number	351	1696	307
Sample Type	soil	soil	water
Date Received	8/23/93	9/2/93	8/23/93
% Dry Weight	77	85	
Sequence Date	#6-08/23/93	#5-09/05/93	
Leaded Gas			
JP-4	< 70	< 60	
Lube Oil	5800	< 120	
Diesel	460-580J	<60プ	
Spike Level			
Unknown Semi-volatile			
Pentacosane	87	51	
Sequence Date			
PCB 1221			
PCB 1232			
PCB 1016			
PCB 1242			
PCB 1248			
PCB 1254			
PCB 1260			
Spike Level			
Dibutyl Chlorendate		-	
Sequence Date			
alpha-BHC			
beta-BHC			
gamma-BHC			
delta-BHC			
Heptachlor			
Aldrin			
Heptachlor Epoxide			
Endosulfan l			
DDE			
Dieldrin			
Endrin			
Endosulfan II			
DDD			
Endrin Aldehyde			
DDT			
Endosulfan Sulfate			
Endrin Ketone			
Methoxy Chlor			
Chlordane			
Dibutyl Chlorendate			
Spike Level	#100000000	#0.0 A 0.010.010.0	#29 A 00/24/02
Vol Sequence	#1&2-08/24/93	#3&4-09/06/93	#3&4-08/24/93
CCI4	< 0.02 R	< 0.1	<1
TCA	< 0.02	< 0.1	<1
Benzene	< 0.02	< 0.02	<1
TCE	< 0.02	< 0.1	<1
Toluene	< 0.02	< 0.02	<1
PCE	< 0.02	< 0.1	<1
Ethylbenzene	0.03	< 0.02	<1
Xylenes Coorline	<0.04√ <2-√23.T	< 0.04	<2 <50 (100 T
Gasoline Spike level	42 La7 J	2 diesel J	£ <del>58</del> ∠100J
Spike level	100	oe	120
BFB	100	86	120

11-11-94

ANALYTICAL DATA SHEETS FOR THE BLADDER DIESEL SPILL (SS20) (Formerly identified as AOC14)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-6 Client Sample ID :BTR-AOC14-S02 Matrix

:SOIL 5520 Smt 11.4.94

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

PWSID

:RAY MORRIS :DEW LINE :BARTER :UA

WORK Order Report Completed

:70009 :10/04/93

Collected Received

:08/21/93 0 18:55 hr :08/24/93 @ 12:00 hr

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In <b>i</b>
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		00/25	00.05	c.c
Bromobenzene	0.020	Ū	mg/Kg	EPA 8260			09/05	SG
Bromochloromethane	0.020	Ū	mg/Kg	EPA 8260			09/05 09/05	.S <b>G</b>
Bromodichloromethane	0.020	Ū	mg/Kg	EPA 8260				SG.
Bromoform	0.020	Ü	mg/Kg	EPA 8260			09/05	S <b>G</b> :
Bromomethane	0.020	Ū	mg/Kg	EPA 8260		08/25		S <b>G</b> :
n-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260		08/25	09/05	SGI
sec-Butylbenzene	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
tert-Butylbenzne	0.020	Ü	mg/Kg	EPA 8260		08/25		S <b>GI</b> S <b>GI</b>
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260				
Chlorobenzene	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
Chloroethane	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
Chloroform	0.020	บั	mg/Kg	EPA 8260		08/25		SGI
Chloromethane	0.020	Ū	mg/Kg	EPA 8260		08/25		S <b>G</b> 1
2-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGP
4-Chlorotoluene	0.020	Ū	mg/Kg	EPA 8260		08/25		SGP
Dibromochloromethane	0.020	Ŭ	mg/Kg	EPA 8260		08/25		SGP.
12Dibromo3Chloropropane	0.020	_	mg/Kg	EPA 8260		08/25		SGM
1,2-Dibromoethane	0.020		mg/Kg	EPA 8260		08/25		SGY.
Dibromomethane	0.020		mg/Kg	EPA 8260		08/25		SGM
1,2-Dichlorobenzene	0.020		mg/Kg	EPA 8260		08/25		SGM
1,3-Dichlorobenzene	0.020	-	mg/Kg	EPA 8260		08/25		SGM
1,4-Dichlorobenzene	0.020	_	mg/Kg	EPA 8260		08/25		SGM
Dichlorodifluoromethane	0.020		mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloroethane	0.020		mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloroethane	0.020	-	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloroethene	0.020	_	mg/Kg	EPA 8260		08/25		SGM
cis-1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		08/25		SGM
trans1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
1,3-Dichloropropane	0.020	_	mg/Kg	EPA 8260		08/25		SGM
7 7 D/-13	0.020		mg/Kg	EPA 8260		08/25 08/25		SGM
1,1-Dichloropropene	0.020		mg/Kg	EPA 8260				SGM
Ethylbenzene	0.020	-	mg/Kg	EPA 8260		08/25		SGM
Hexachlorobutadiene	0.020	_	mg/Kg	EPA 8260		08/25		SGM
Isopropylbenzene	0.020		mg/Kg	EPA 8260		08/25 08/25		SGM SGM
p-Isopropyltoluene	0.020		mg/Kg	EPA 8260		08/25		
		_	3/ • 13	LL A 0200		00/20	U 7/ U D	SGM



ENVIRONMENTAL LABORATORY BERVICES

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SINCE (FOR	REPOR	RT of ANALYSIS	; ;	5633 B STREE ANCHORAGE, AK 985 TEL: (907) 562-234 FAX: (907) 561-690	15
themlab Ref.# :93.4305-6	•		in white	CC VVI TEL (907) 502-234	43
"lient Sample ID (Bik-ALA	2			FAX: (907) 561-590	01
satrix :SOIL SS20	BFM 11.7.94		V		
	0 000 11	//a F	A 8260	VO/ 20 01/	SGM
Methylene Chloride	0.020 U		PA 8260	<b>U</b> U, <b>U</b> U • • •	BGM
Napthalene	0.020 U		A 8260		BGM
n-Propylbenzene	0.020 U		PA 8260		SGM
Styrene	0.020 U		A 8260		SGM
1112-Tetrachloroethane	0.020 U		A 8260	00/20 00/	SGH
1122-Tetrachloroethane	0.020 U	ביי וקייי ביי	A 8260		<b>SGM</b>
Tetrachloroethene	0.020 U		PA 8260	VU/ 40 V=/ V	SGM
Toluene	0.020 U	W.37 4.3	PA 8260	08/25 09/05	SGM
1,2,3-Trichlorobenzene	0.020 U		PA 8260	08/25 09/05	6GM
1.2.4-Trichlorobenzene	0.020 U 0.020 U		PA 8260	08/25 09/05	SGM
1.1.1-Trichloroethane	0.000		PA 8260	08/25 09/05	SGM
1,1,2-Trichloroethane	0.020 U		PA 8260	08/25 09/05	SGM
Trichloroethene	0.020 U		PA 8260	08/25 09/05	SGM
Trichlorofluoromethane	0.020 U		PA 8260	08/25 09/05	SGM
1,2,3-Trichloropropane	0.020 U	m/3/ 1/3	PA 8260	08/25 09/05	SGM
1.2.4-Trimethylbenzene	0.020 U	···· > · · · ·	PA 8260	08/25 09/05	BGM
1,3,5-Trimethylbenzene	0.020 U		PA 8260	08/25 09/05	SGM
Vinyl Chloride	0.020 U		PA 8260	08/25 09/05	SGM
p+m-Xylene	0.020 U		PA 8260	08/25 09/05	SGM
o-Xylene	0.020 U	mg/Kg E	FA 0200		
		Ε	PA 8270	20 4 20 420	MTT
Semivoletile Organics	0.210 U	mg/Kg E	PA 8270	09/04 09/28	MTT
Phenol	0.210 U		PA 8270	09/04 09/28	MIT
bis(2-Chloroethyl)ether	0.210 U	mg/Kg E	PA 8270	09/04 09/28	WII.
2-Chlorophenol	0.210 U	ma/Ka E	PA 8270	09/04 09/28	HIT
1,3-Dichlorobenzene	0.210 U	ma/Ka E	FA 8270	09/04 09/28	MIT
1,4-Dichlorobenzene	1.00 U	ma/Ka E	PA 8270	09/04 09/28 09/04 09/28	MTT
Benzyl Alcohol	0.210 U	ma/Ka B	₽A B270	09/04 09/28	MTT
1,2-Dichlorobenzene	0.210 U	ma/Ka E	PA 8270	09/04 09/28	MTI
2-Methylphenol bis(2-Chloroisopropyl)e	0.210 U	mar/Kar	PA 8270	09/04 09/28	MTI
Dis(X=CUTOTOTSOPLODYETE	0.210 U	ma/Ka	PA 8270	09/04 09/28	MTT
4-Methylphenol n-Nitroso-di-n-Propylam	0.210 U	mc/Kg I	PA 8270	09/04 09/28	MIT
Hexachloroethane	0.210 U	ma/Ka	EPA 8270	09/04 09/28	MTT
Nitrobenzene	0.210 U	mg/Kg l	EPA 8270	09/04 09/28	MTT
	0.210 U	W.D. 1.3	EPA 8270	09/04 09/28	MTT
Isophorone 2-Nitrophenol	0.210 U	mg/Kg l	EPA 8270	09/04 09/28	HTT
2,4-Dimethylphenol	0.210 U	mg/Kg	EPA 8270	09/04 09/28	TTM
Benzoic Acid	0.210 U		EPA 8270	09/04 09/28	MTT
bis(2-Chloroethoxy)Meth	0.210 U		EPA 8270	09/04 09/28	MTT
2,4-Dichlorophenol	0.210 U		EPA 8270	09/04 09/28	MTT
1,2,4-Trichlorobenzene	0.210 U	, <b>3</b> , <b>a</b>	EPA 8270	09/04 09/28	HTT
Naphthalene	0.210 U		EPA 8270	09/04 09/28	MIT
4-Chloroaniline	0.210 U		EPA 8270	09/04 09/28	MTT
Hexachlorobutadiene	0.210 U		EPA 8270	09/04 09/28	MTT
4-Chloro-3-Methylphenol	0.210 U		EPA 8270	09/04 09/28	MTT
2-Methylnaphthalene	0.210 U		EPA 8270	09/04 09/28	MTT
Hexachlorocyclopentadie	0.210 U	mg/Kg	EPA 8270 (J) 1 1	09/04 09/28	MIT
2,4,6-Trichlorophenol	0.210 U	mg/Kg	EPA 8270	09/04 09/28	MTT
2,4,5-Trichlorophenol	0.216 U	mg/Kg	EPA 8270	09/04 09/28	MTT
2-Chloronaphthalene	0.210 U	mg/Kg	EPA 8270		
					4

1-18.97





ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908	7.00	DOD# 5 -				
Chemlab Ref.# :93.4305-6	RE	PORT of A	NALYSIS		5633 B S	TOCCT
Client Sample ID :BTR-A0C14-	702				ANCHORAGE, AK	99518
Matrix :SOIL SS20	502				TEL: (907) 56	2-2343
8M4					FAX: (907) 56	1-5301
11.43	•					
2-Nitroaniline	0.210 ປ	mg/Kg	EPA 8270		09/04 09/28	MT
Dimethylphthalate	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT.
Acenaphthylene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MC
2,6-Dinitrotoluene	0.210 U		EPA 8270		09/04 09/28	MT
3-Nitroaniline	0.210 U		EPA 8270		09/04 09/28	MT
Acenaphthene	0.210 U		EPA 8270		09/04 09/28	MT
2,4-Dinitrophenol	0.210 U		EPA 8270		09/04 09/28	ΓM
4-Nitrophenol	0.210 U		EPA 8270		09/04 09/28	rm
Dibenzofuran	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
2,4-Dinitrotoluene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
Diethylphthalate	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
4-Chlorophenyl-Phenylet	0.210 U	mg/Kg	EPA 8270			
Fluorene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	TM
4-Nitroaniline	0.210 U		EPA 8270		09/04 09/28	TM
4,6-Dinitro-2-Methylphe	0.210 U	3/ • 19			09/04 09/28	TM
n-Nitrosodiphenylamine	0.210 U	3/ * . 9	EPA 8270		09/04 09/28	MT
4-Bromophenyl-Phenyleth	0.210 U	mg/Kg	EPA 8270 EPA 8270		09/04 09/28	TM
Hexachlorobenzene	0.210 U	mg/Kg			09/04 09/28	MT
Pentachlorophenol	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
Phenanthrene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
Anthracene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	HT
di-n-Butylphthalate	1.00 U	mg/Kg	EPA 8270		09/04 09/28	MT.
Fluoranthene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT.
Pyrene	0.210 U		EPA 8270		09/04 09/28	MT.
Butylbenzylphthalate	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
3,3-Dichlorobenzidine	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(a)Anthracene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
Chrysene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MT
bis(2-Ethylhexyl)Phthal	1.00 U	mg/Kg	EPA 8270		09/04 09/28	MTT
di-n-Octylphthalate	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MTI
Benzo(b)Fluoranthene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MTI
Benzo(k)Fluoranthene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MTI
Benzo(a)Pyrene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	TTM
Indeno(1,2,3-cd)Pyrene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MTT
Dibenz(a,h)Anthracene	0.210 U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(g,h,i)Perylene	0.210 U	mg/Kg	EPA 8270	•	09/04 09/28	MTT
(5),,-,- 02,20	0.210	mg/Kg	EPA 8270		09/04 09/28	MTT
Sample Preparation			FD1 2050 51			
Total Metals Analysis			EPA 3050 Digest			
ICP Screen, ICF						
Aluminum	1600	- Al-	EPA	n/a		
Antimony		mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic		mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	5.2 U	mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	13 2.6 U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium		mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	2.6 U	mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	13000 3.0	mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt		mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	5.2 U	mg/Kg	EPA 6010		08/27 08/29	DFL
Iron	4.8 6000	mg/Kg	EPA 6010		08/27 08/29	DFL
	5000	mg/Kg	EPA 6010		08/27 08/29	DFL



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

REPORT of ANALYSIS

Client Sample ID :BTR-AOC14-S02

:SOIL SS20 BFM 11.8.94

:93.4305-6

Qualifier Connect

5633 B ANCHORAGE, A TEL: (907) 562 FAX: (907) 561-530'

Lead	5.2 U	mg/Kg	EPA 6010	08/27 08/29	D
Magnesium	5600	ng/Kg	EPA 6010	I 08/27 08/29	D
Manganese	69	mg/Kg	EPA 6010	08/27 08/29	D
Molybdenum	2.6 บ	mg/Kg	EPA 6010	08/27 08/29	D
Nickel	5.6	mg/Kg	EPA 6010	08/27 08/29	D
Potassium	260 U	ng/Kg	EPA 6010	08/27 08/29	Ė
Selenium	5.2 U		EPA 6010	08/27 08/29	1000
Silver	2.6 U	mg/Kg	EPA 6010	08/27 08/29	C
Sodium	52	mg/Kg	EPA 6010	08/27 08/2 <del>9</del>	t
Thallium	0.25 U	mg/Kg	EPA 7841	08/26 08/28	K
Vanadium	4.9	mg/Kg	EPA 6010	08/27 08/29	Ţ.
Zinc	13	mg/Kg	EPA 6010	08/27 08/29	t
4111	13	mg/ 11g	227. 0010		
TOC, Soil	1150	mg/Kg	PSEP Ref Lab		

M chops 13/94

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analya

LT = Less Than

GT = Greater Than





**ENVIRONMENTAL LABORATORY SERVICES** 

Chemlab Ref.#

REPORT of ANALYSIS

:93.4305-5

Client Sample ID :BTR-A0C14-S03
Matrix :SOIL SS20

5633 B STREE ANCHORAGE, AK 9951 TEL: (907) 562-234 FAX: (907) 561-53C

PWSID

แนคป

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

WORK Order :70009 Report Completed :10/04/93

Project Name Project#

:DEW LINE :BARTER :UA

Collected :08/21/93 @ 19:35 Received ħ.

Technical Director: STEPHEN C. EDE

:08/24/93 @ 12:00

Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
	Volatile Organics				EPA 8260				
	Benzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	S:
	Bromobenzene	0.020	U	mg/Kg	EPA 8260		08/25	09/05	. S(
	Bromochloromethane	0.020	U	mg/Kg	EPA 8260			09/05	5(
	Bromodichloromethane	0.020	U	mg/Kg	EPA 8260			09/05	S(
	Bromoform	0.020	U	mg/Kg	EPA 8260			09/05	S(
	Bromomethane	0.020	ប	mg/Kg	EPA 8260			09/05	SC
	n-Butylbenzene	0.020	U	mg/Kg	EPA 8260			09/05	SC
	sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260			09/05	SE
<b>N</b>	tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260			09/05	SG
•	Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260			09/05	SG
	Chlorobenzene	0.020	U	mg/Kg	EPA 8260			09/05	SG
	Chloroethane	0.020	บ	mg/Kg	EPA 8260			09/05	SG
	Chloroform	0.020	U	mg/Kg	EPA 8260			09/05	SG
	Chloromethane	0.020	U	mg/Kg	EPA 8260			09/05	SG
	2-Chlorotoluene	0.020	U	mg/Kg	EPA 8260			09/05	SG
	4-Chlorotoluene	0.020	U	mg/Kg	EPA 8260		08/25		SG
	Dibromochloromethane	0.020	ប	mg/Kg	EPA 8260		08/25		SG
	12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25		SG
	1,2-Dibromoethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SG
	Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25		SG:
	1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		SG:
	1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		SG:
	1,4-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		SG:
	Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25		SG1
	1,1-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25		SGI
	1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25		SGI
	1.1-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25		SGI
	cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25		SGP
	trans1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260		08/25		SGI
	1,2-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25		SGE
	1,3-Dichloropropane	0.020	U	mg/Kg	EPA 8260		08/25		SGL
	2,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM.
	1,1-Dichloropropene	0.020		mg/Kg	EPA 8260		08/25		SGE.
	Ethylbenzene	0.020		mg/Kg	EPA 8260		08/25		SGM
	Hexachlorobutadiene	0.020		mg/Kg	EPA 8260		08/25		SGM
	Isopropylbenzene	0.020		mg/Kg	EPA 8260		08/25		SGM
	p-Isopropyltoluene	0.020		mg/Kg	EPA 8260		08/25		SGM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4305-5 5633 B STREET ANCHORAGE, AK 99518 Client Sample ID :BTR-AOC14-S03 TEL: (907) 562-234: Matrix :SOIL 8mf 11.4.94 FAX: (907) 561-530 Methylene Chloride 0.020 U mg/Kg EPA 8260 08/25 09/05 S Napthalene 0.020 U mg/Kq EPA 8260 08/25 09/05 S n-Propylbenzene 0.020 U mg/Kg 08/25 09/05 **EPA** 8260 S Styrene 0.020 11 mg/Kg EPA 8260 08/25 09/05 S 1112-Tetrachloroethane 0.020 U mg/Kg EPA 8260 08/25 09/05 S 1122-Tetrachloroethane 0.020 11 mg/Kg EPA 8260 08/25 09/05 S Tetrachloroethene 0.020 U. EPA 8260 ma/Ka 08/25 09/05 S Toluene 0.020 U mg/Ka EPA 8260 08/25 09/05 S( 1,2,3-Trichlorobenzene 0.020 U mq/Kq **EPA** 8260 08/25 09/05 S( 1,2,4-Trichlorobenzene 0.020 U mg/Kg EPA 8260 08/25 09/05 S( 1,1,1-Trichloroethane 0.020 U 08/25 09/05 mg/Kg EPA 8260 S( 1,1,2-Trichloroethane 0.020 U 08/25 09/05 ma/Ka EPA 8260 SC Trichloroethene 0.020 U mq/Ka EPA 8260 08/25 09/05 SC Trichlorofluoromethane 0.020 U mg/Kg EPA 8260 08/25 09/05 SC 1,2,3-Trichloropropane 0.020 U mq/Kq EPA 8260 08/25 09/05 SG 1,2,4-Trimethylbenzene 0.020 U mg/Kg EPA 8260 08/25 09/05 SC 1,3,5-Trimethylbenzene 0.020 U mg/Kg EPA 8260 08/25 09/05 SG Vinyl Chloride 0.020 U mg/Kg EPA 8260 08/25 09/05 SG p+m-Xylene 0.020 U mg/Kg EPA 8260 08/25 09/05 SG o-Xylene 0.020 U mg/Kg EPA 8260 08/25 09/05 SG Semivolatile Organics EPA 8270 Phenol 0.220 U ma/Ka EPA 8270 09/04 09/28 bis(2-Chloroethyl)ether 0.220 U mg/Kg **EPA** 8270 09/04 09/28 MΤ 2-Chlorophenol 0.220 U mg/Kg **EPA** 8270 09/04 09/28 MT 1,3-Dichlorobenzene 0.220 U mg/Kg **EPA** 8270 09/04 09/28 MT. 1,4-Dichlorobenzene 0.220 U mg/Kq EPA 8270 09/04 09/28 MT. Benzyl Alcohol 1.00 U mg/Kq **EPA** 8270 09/04 09/28 MT. 1.2-Dichlorobenzene 0.220 U mq/Ka **EPA** 8270 09/04 09/28 MT. 2-Methylphenol 0.220 U mg/Kq **EPA** 8270 09/04 09/28 MT. bis(2-Chloroisopropyl)e 0.220 U mg/Kg EPA 8270 09/04 09/28 MTT. 4-Methylphenol 0.220 U mg/Kg **EPA** 8270 09/04 09/28 MT. n-Nitroso-di-n-Propylam 0.220 U mg/Kg EPA 8270 09/04 09/28 MTI Hexachloroethane 0.220 U mg/Kg 09/04 09/28 EPA 8270 MTI Nitrobenzene 0.220 U mg/Kg **EPA** 8270 09/04 09/28 MTI Isophorone 0.220 U mg/Kg EPA 8270 09/04 09/28 TTM 2-Nitrophenol 0.220 U ma/Ka EPA 8270 09/04 09/28 MTT 2,4-Dimethylphenol 0.220 U mg/Kq **EPA** 8270 09/04 09/28 MTT Benzoic Acid 0.220 U mg/Kg EPA 8270 09/04 09/28 MTT bis(2-Chloroethoxy)Meth 0.220 U mg/Kg EPA 8270 09/04 09/28 MTT 2,4-Dichlorophenol 0.220 U mg/Kq **EPA** 8270 09/04 09/28 MTT 1,2,4-Trichlorobenzene 0.220 U mg/Kg **EPA** 8270 09/04 09/28 MTT Naphthalene 0.220 U mg/Kg EPA 8270 09/04 09/28 MTT 4-Chloroaniline 0.220 U mg/Kg **EPA** 8270 09/04 09/28 MTT Hexachlorobutadiene 0.220 U mg/Kg **EPA** 8270 09/04 09/28 MTT 4-Chloro-3-Methylphenol 0.220 U mg/Kg EPA 8270 09/04 09/28 MTT 2-Methylnaphthalene 0.220 U EPA 8270 mg/Kg 09/04 09/28 MTT 0.220 Hexachlorocyclopentadie U mg/Kg **EPA** 8270 09/04 09/28 MTT 2,4,6-Trichlorophenol 0.220 U mg/Kg EPA 8270 09/04 09/28 MTT 2,4,5-Trichlorophenol 0.220 U mg/Kg EPA 8270 09/04 09/28 LTT 2-Chloronaphthalene 0.220



**EPA** 8270

09/04 09/28

mg/Kg

ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908							
Chemlab Ref.# :93.4305-5		REP	ORT of A	NALYSIS		5633 0	STREET
	_					ANCHORAGE, A	K 99518
Client Sample ID :BTR-AOC14-SO: Matrix :SOII. 5520	3					TEL: (907) 5	62-2343
8M#						FAX: (907) 5	61-5301
11.4.94							
2-Nitroaniline	0.220		mg/Kg	EPA 8270		09/04 09/28	MT
Dimethylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	
Acenaphthylene	0.220	ប	mg/Kg	EPA 8270		09/04 09/28	
2,6-Dinitrotoluene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	
3-Nitroaniline	0.220	U	mg/Kg	EPA 8270		09/04 09/28	
Acenaphthene	0.220	Ū	mg/Kg	EPA 8270		09/04 09/28	
2,4-Dinitrophenol	0.220	Ü,		EPA 8270			
4-Nitrophenol	0.220	Ü	mg/Kg			09/04 09/28	
Dibenzofuran	0.220	Ü		EPA 8270		09/04 09/28	
2,4-Dinitrotoluene	0.220	Ü	mg/Kg	EPA 8270		09/04 09/28	
Diethylphthalate	0.220		mg/Kg	EPA 8270		09/04 09/28	
4-Chlorophenyl-Phenylet		U	mg/Kg	EPA 8270		09/04 09/28	
Fluorene	0.220	Ü	mg/Kg	EPA 8270		09/04 09/28	
4-Nitroaniline	0.220	Ü	mg/Kg	EPA 8270		09/04 09/28	
	0.220	U	mg/Kg	EPA 8270		09/04 09/28	
4,6-Dinitro-2-Methylphe	0.220	U	mg/Kg	EPA 8270		09/04 09/28	
n-Nitrosodiphenylamine	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT.
4-Bromophenyl-Phenyleth	0.220	U	mg/Kg	EPA 8270		09/04 09/28	
Hexachlorobenzene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pentachlorophenol	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Phenanthrene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MTI
Anthracene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MTI
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270		09/04 09/28	MTI
Fluoranthene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MTI
. Pyrene	0.220	Ü	mg/Kg	EPA 8270		09/04 09/28	MTI
Butylbenzylphthalate	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MTT
3,3-Dichlorobenzidine	0.220	ŭ	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(a)Anthracene	0.220	Ū	mg/Kg	EPA 8270			
Chrysene	0.220	Ü	mg/Kg	EPA 8270		09/04 09/28	MTT
bis(2-Ethylhexyl)Phthal	1.00	Ü	mg/Kg	EPA 8270		09/04 09/28	MTT
•• • • • • • • • • • • • • • • • • • • •	0.220	Ü				09/04 09/28	MTT
	0.220	Ü	mg/Kg	EPA 8270		09/04 09/28	HTT
<b>—</b>	0.220	Ü	mg/Kg	EPA 8270		09/04 09/28	MTT
<b>5</b> / 1-	0.220		mg/Kg	EPA 8270		09/04 09/28	MTT
<b>- • • • • • • • • • • • • • • • • • • •</b>		U	mg/Kg	EPA 8270		09/04 09/28	MTT
	0.220	Ü	mg/Kg	EPA 8270		09/04 09/28	MTT
	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Benzo(g,h,i)Perylene	0.220	U	mg/Kg	EPA 8270		09/04 09/28	MTT
Comple Describe							
Sample Preparation				EPA 3050 Digest			
Total Metals Analysis				_			
ICP Screen, ICF				EPA	n/a		
Aluminum	2100		mg/Kg	EPA 6010		08/27 08/29	DFL
Antimony	53	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Arsenic	5.3	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium	18		mg/Kg	EPA 6010		08/27 08/29	DFL
Beryllium	2.7	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Cadmium	2.7	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Calcium	3700		mg/Kg	EPA 6010		08/27 08/29	DFL
Chromium	4.7		mg/Kg	EPA 6010		08/27 08/29	DFL
Cobalt	5.3	U	mg/Kg	EPA 6010		08/27 08/29	DFL
Copper	4.7	-	mg/Kg	EPA 6010		08/27 08/29	
Iron	5800		mg/Kg				DFL
			mg/ Ng	EPA 6010		08/27 08/29	DFL



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908			PEP	DPT of A	ANALYSIS				
Chemlab Ref.#	:93.4305-5		1444	OKI OI A	WINNTISIS			5633 B ST	
Client Sample 1								DRAGE, AK 9	
Matrix	:SOIL SOUL							EL: (907) 562- IX: (907) 561-	
Lead	и 1.17	11		mg/Kg	EPA	6010	08/27	08/29	DE
Magnesium		1800		mg/Kg		6010	08/27	•	DF
Manganese		69		mg/Kg		6010	08/27		DE
Molybdenum		2.7	U	mg/Kg		6010	08/27		DF
Nickel		5.3		mg/Kg		6010	08/27		DF
Potassium		270	U	ma/Ka		6010	08/27		DF
Selenium		5.3	IJ.	mg/Kg		6010	08/27		DE
Silver		2.7	U	mg/Kg		6010	08/27		DF
Sodium		61		mg/Kg	EPA	6010	08/27		DF
Thallium		0.27	U	mg/Kg	EPA	7841	08/26		KA
Vanadium		6.0		mg/Kg	EPA	6010	08/27	08/29	DF
Zinc		2.7		<b>mg∕K</b> g	EPA	6010	08/27	08/29	DF
TOC, Soil		3750		mg/Kg	PSEP	Ref Lab			

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-4 Client Sample ID :BTR-A0C14-S04 SSZO BMF Matrix

:SOIL

11:494

5633 B STREE ANCHORAGE, AK 9951: TEL: (907) 562-234: FAX: (907) 561-530

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name Project# PWSID

:DEW LINE :BARTER :UA

WORK Order :70009 Report Completed

:10/04/93 Collected :08/21/93 @ 19:35 h Received :08/24/93 @ 12:00 h:

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Benzene	0.020	U	mg/Kg	EPA 8260		00.405	00 (05	
Bromobenzene	0.020	U	mg/Kg	EPA 8260			09/05	SG
Bromochloromethane	0.020	U	mg/Kg	EPA 8260			09/05	·SG
Bromodichloromethane	0.020	Ü	mg/Kg	EPA 8260			09/05	SG
Bromoform	0.020	Ū	mg/Kg	EPA 8260			09/05	SG
Bromomethane	0.020	Ū	mg/Kg	EPA 8260			09/05	SG
n-Butylbenzene	0.020	Ū	mg/Kg	EPA 8260			09/05	SG:
sec-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260			09/05	S <b>G</b> :
tert-Butylbenzne	0.020	Ū	mg/Kg	EPA 8260		08/25		SG:
Carbon Tetrachloride	0.020	บ	mg/Kg	EPA 8260		08/25		SGI
Chlorobenzene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGI
Chloroethane	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
Chloroform	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
Chloromethane	0.020	บั	mg/Kg	EPA 8260		08/25		SGI
2-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGI
4-Chlorotoluene	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
Dibromochloromethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SG1
12Dibromo3Chloropropane	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
1,2-Dibromoethane	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
Dibromomethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SGE
1,2-Dichlorobenzene	0.020	Ū	mg/Kg	EPA 8260		08/25		SGM
1,3-Dichlorobenzene	0.020	Ū	mg/Kg	EPA 8260		08/25		SGM
1,4-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGM
Dichlorodifluoromethane	0.020	U	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloroethane	0.020	Ū	mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloroethane	0.020	Ū	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloroethene	0.020		mg/Kg	EPA 8260		08/25		SGM
cis-1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		08/25		SGM
trans1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
2,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloropropene	0.020		mg/Kg	EPA 8260		08/25		SGM
Ethylbenzene	0.020		mg/Kg	EPA 8260		08/25		SGM
Hexachlorobutadiene	0.020		mg/Kg	EPA 8260		08/25		SGM
Isopropylbenzene	0.020		mg/Kg	EPA 8260		08/25		SGM
p-Isopropyltoluene	0.020		mg/Kg	EPA 8260		08/25		SGM
	_	-	3/ ••9	MA 0200	•	08/25	J3/02	SGM



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908			
	REPORT of AN	ALYSIS	
Chemlab Ref.# :93.4305-4			5633 B STREET
Client Sample ID :BTR-A0C17	<u>[</u> -504		ANCHORAGE, AK 99518 TEL: (907) 562-2343
Matrix :SOIL %	u L		FAX: (907) 561-5301
(	1.4 44		
Methylene Chloride	0.020 U mg/Kg	EPA 8260	08/25 09/05 sc
Napthalene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SC
n-Propylbenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SC
Styrene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SC
1112-Tetrachloroethane	0.020 U mg/Kg	EPA 8260	08/25 09/05 sc
1122-Tetrachloroethane	0.020 U mg/Kg	EPA 8260	08/25 09/05 SC
Tetrachloroethene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SC
Toluene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG
1,2,3-Trichlorobenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG
1,2,4-Trichlorobenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG
1,1,1-Trichloroethane	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG
1,1,2-Trichloroethane	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG
Trichloroethene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG
Trichlorofluoromethane	0.020 U mg/Kg	EPA 8260	
1,2,3-Trichloropropane	0.020 U mg/Kg	EPA 8260	· · · · · · · · · · · · · · · · · · ·
1,2,4-Trimethylbenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG
1,3,5-Trimethylbenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 · SG
Vinyl Chloride	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG:
p+m-Xylene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SG:
o-Xylene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SGI
	ing/Ng	EFA 0200	08/25 <b>09/05</b> SG!
Semivolatile Organics		EPA 8270	
Phenol :	0.220 U mg/Kg	EPA 8270	09/04 09/28
bis(2-Chloroethyl)ether	0.220 U mg/Kg	EPA 8270	09/04 09/28 TT 09/04 09/28 ATT
2-Chlorophenol	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTI
1,3-Dichlorobenzene	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTI
1,4-Dichlorobenzene	0.220 U mg/Kg	EPA 8270	09/04 09/28 HTT
Benzyl Alcohol	1.00 U mg/Kg	EPA 8270	09/04 09/28 MTI
1,2-Dichlorobenzene	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
2-Methylphenol	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
bis(2-Chloroisopropyl)e	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
4-Methylphenol	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
n-Nitroso-di-n-Propylam	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
Hexachloroethane	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
Nitrobenzene	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
Isophorone	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
2-Nitrophenol	0.220 U mg/Kg	EPA 8270	09/04 <b>09/28 MTT</b>
2,4-Dimethylphenol	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
Benzoic Acid	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
bis(2-Chloroethoxy)Meth	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
2,4-Dichlorophenol	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
1,2,4-Trichlorobenzene	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
Naphthalene	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
4-Chloroaniline	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
Hexachlorobutadiene	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
4-Chloro-3-Methylphenol	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
2-Methylnaphthalene	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
Hexachlorocyclopentadie	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
2,4,6-Trichlorophenol	0.220 U mg/Kg	EPA 8270	09/04 09/28 MTT
2,4,5-Trichlorophenol	0.220 U mg/Kg	EPA 8270	09/04 09/28 ATT
2-Chloronaphthalene	0.220 U mg/Kg	EPA 8270	09/04 09/28 T
			11, 11, 11, 11, 11, 11, 11, 11, 11, 11,



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908		חבים	) DOT - C >			· · · · · · · · · · · · · · · · · · ·	
Chemlab Ref.# :93.4305-4		REP	ORT of A	NALYSIS		5633 B S	TOCC-
						ANCHORAGE, AK	99516
Matrix :SOIL SS20						TEL: (907) 56	2-2343
Matrix :SOIL SS20						FAX: (907) 56	
2 114-44							
	.220	U	mg/Kg	EPA 8270		09/04 09/28	M'
	.220	U	mg/Kg	EPA 8270		09/04 09/28	'n,
Acenaphthylene 0	.220	U	mg/Kg	EPA 8270			
	.220	Ū	mg/Kg	EPA 8270		09/04 09/28	M.
	.220	Ü	mg/Kg			09/04 09/28	Μſ
	.220	Ü		EPA 8270		09/04 09/28	MT
·	.220	-	mg/Kg	EPA 8270		09/04 09/28	MΓ
		Ü	mg/Kg	EPA 8270		09/04 09/28	MT.
	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT.
	.220	U	<b>mg∕K</b> g	EPA 8270		09/04 09/28	ME
	.220	U	<b>mg/K</b> g	EPA 8270		09/04 09/28	MI
Diethylphthalate 0	.220	U	mg/Kg	EPA 8270		09/04 09/28	ΓM
4-Chlorophenyl-Phenylet 0	.220	U	mg/Kg	EPA 8270		09/04 09/28	EM
Fluorene 0	.220	Ü	mg/Kg	EPA 8270		09/04 09/28	
4-Nitroaniline 0	.220	U	mg/Kg	EPA 8270			ΓM
4,6-Dinitro-2-Methylphe 0	.220	Ū	mg/Kg	EPA 8270		09/04 09/28	ΓM
	.220	Ü	mg/Kg			09/04 09/28	ΓM
	.220	Ü	mg/Kg	EPA 8270		09/04 09/28	TM
	.220	Ü		EPA 8270		09/04 09/28	MT
	.220		mg/Kg	EPA 8270		09/04 09/28	MT
		U	mg/Kg	EPA 8270		09/04 09/28	MT
	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
	1.00	U	mg/Kg	EPA 8270		09/04 09/28	MT
	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Pyrene 0	.220	Ü	mg/Kg	EPA 8270		09/04 09/28	MT
Butylbenzylphthalate 0.	.220	Ü	mg/Kg	EPA 8270		09/04 09/28	
3,3-Dichlorobenzidine 0.	.220	U	mg/Kg	EPA 8270			MT
	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
<b>-</b> *	.220	Ü	mg/Kg			09/04 09/28	MT
L1-10 H11 31 31-11	1.00	Ü	_	EPA 8270		09/04 09/28	MT
	.220	Ü	mg/Kg	EPA 8270		09/04 09/28	MT
	.220	_	mg/Kg	EPA 8270		09/04 09/28	MT
<b>—</b> ·· · — —	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT.
<b>n</b>		U	mg/Kg	EPA 8270		09/04 09/28	MT
Indepo(1 2 2 ed) Preserve	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT.
	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
	.220	U	mg/Kg	EPA 8270		09/04 09/28	MT
Benzo(g,h,i)Perylene 0.	.220	U	<b>mg/K</b> g	EPA 8270		09/04 09/28	MTT
						03/04 03/20	111.
Sample Preparation				EPA 3050 Digest			
Total Metals Analysis				2030 Bigese			
ICP Screen, ICF				EPA	- /-		
	2000		mg/Kg		n/a	00 (00 00 (00	
Antimony	53	U		EPA 6010		08/27 08/29	DFL
Arsenic	5.3	Ü	mg/Kg	EPA 6010		08/27 08/29	DFL
Barium		U	mg/Kg	EPA 6010		08/27 08/29	DFL
	18		mg/Kg	EPA 6010		08/27 08/29	DFL
		U	mg/Kg	EPA 6010		08/27 08/29	DFL
		U	mg/Kg	EPA 6010		08/27 08/29	DFL
· · · · · · · · · · · · · · · · · ·	1000		mg/Kg	EPA 6010		08/27 08/29	DFL
	4.0		mg/Kg	EPA 6010		08/27 08/29	DFL
		U	mg/Kg	EPA 6010		08/27 08/29	DFL
	4.9		mg/Kg	EPA 6010		08/27 08/29	DFL
Iron 6	200		mg/Kg	EPA 6010		08/27 08/29	DFL
			J. 7.3			00/21 00/23	DE L





ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908				REP	ORT of AN	INI VCTC				
Chemlab Ref.# Client Sample Matrix	ID	:93.4305-4 :BTR-AOC14-S0 :SOIL	4		oni oi ai	ALLISTS		Т	5633 B ST ORAGE, AK EL: (907) 562 AX: (907) 561	99518 2-2343
Lead		10 ( -1	8.5		mg/Kg		6010	·	08/29	DI
Magnesium			17000		mg/Kg		6010	•	08/29	DI
Manganese Molybdenum			7 <b>7</b> 2.7		mg/Kg		6010	•	08/29	DE
Nickel			4.6	U	mg/Kg		6010	•	08/29	DE
Potassium			270	U	mg/Kg mg/Ka		6010 6010		•	DE
Selenium			5.3	U.	mg/Kg		6010	08/27 08/27	08/29 08/29	DE DE
Silver			2.7	Ü	mg/Kg		6010		08/29	DE
Sodium			58		mg/Kg		6010		08/29	DF
Thallium			0.28	Ü	mg/Kg	EPA	7841		08/28	K.
Vanadium			6.3		mg/Kg	EPA	6010		08/29	DF
Zinc			21		mg/Kg	EPA	6010	08/27	08/29	DF
TOC, Soil			2970		mg/Kg	PSEP F	Ref Lab			

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

Chemlab Ref.#

:93.4305-1

Client Sample ID :BTR-AOC14-SD01

Matrix

:SOIL \$520

5633 B STREE ANCHORAGE, AK 9951 TEL: (907) 562-234

FAX: (907) 561-530

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

:70009

Report Completed Collected

:10/04/93

:08/21/93 @ 20:10 h h

Received

:08/24/93 @ 12:00

Released By :

Technical Director: STEPHEN C. EDE

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S

CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
	Volatile Organics				EPA 8260				
	Benzene	0.020	U	mg/Kg	EPA 8260		00 (05	00 (0=	
	Bromobenzene	0.020	Ü	mg/Kg	EPA 8260			09/05	SC
	Bromochloromethane	0.020	บั	mg/Kg	EPA 8260			09/05	SG
	Bromodichloromethane	0.020	ŭ	mg/Kg	EPA 8260			09/05	SG
	Bromoform	0.020	Ŭ	mg/Kg	EPA 8260			09/05	SG
	Bromomethane	0.020	Ū	mg/Kg	EPA 8260			09/05	SG
	n-Butylbenzene	0.020	Ū	mg/Kg	EPA 8260			09/05	SG
	sec-Butylbenzene	0.020	Ü	mg/Kg	EPA 8260			09/05	SG
	tert-Butylbenzne	0.020	Ü	mg/Kg	EPA 8260			09/05	SG
	Carbon Tetrachloride	0.020	Ü	mg/Kg	EPA 8260		08/25		SG
	Chlorobenzene	0.020	Ū	mg/Kg	EPA 8260			09/05	SG:
	Chloroethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SG
	Chloroform	0.020	Ü	mg/Kg	EPA 8260		08/25		SGI
	Chloromethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SGI
	2-Chlorotoluene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGI
	4-Chlorotoluene	0.020	Ū	mg/Kg	EPA 8260		08/25		SGI
	Dibromochloromethane	0.020	Ū	mg/Kg	EPA 8260		08/25 08/25		SGI
	12Dibromo3Chloropropane	0.020	U	mg/Kg	EPA 8260		08/25		SGI
	1,2-Dibromoethane	0.020	U	mg/Kg	EPA 8260		08/25		5 <b>G1</b> 5 <b>G1</b>
	Dibromomethane	0.020	U	mg/Kg	EPA 8260		08/25		SGI
	1,2-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		SGI
	1,3-Dichlorobenzene	0.020	U	mg/Kg	EPA 8260		08/25		SGL
	1,4-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260		08/25		SGM
	Dichlorodifluoromethane	0.020		mg/Kg	EPA 8260		08/25		SGM
	1,1-Dichloroethane	0.020		mg/Kg	EPA 8260		08/25		SGM
	1,2-Dichloroethane	0.020		mg/Kg	EPA 8260		08/25		SGM
	1,1-Dichloroethene	0.020		mg/Kg	EPA 8260		08/25		SGM
	cis-1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		08/25		SGM
	trans1,2-Dichloroethene	0.020		mg/Kg	EPA 8260		08/25		SGM
	1,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
	1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
	2,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
	1,1-Dichloropropene	0.020		mg/Kg	EPA 8260		08/25		SGM
	Ethylbenzene	0.020		mg/Kg	EPA 8260		08/25		SGM
<b>\</b>	Hexachlorobutadiene	0.020		mg/Kg	EPA 8260		08/25		SGM
•				J J	0200		00/23	02/03	SGH



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

COMMERCE ENVIRONMENTAL L	ABORATORY SERVICES		
SINCE 1908	REPORT OF ANAL	YSIS TIK	ANCHORAGE, AK 99518
maminh Ref. # :93,4305-1			TEL: (907) 562-2343
lient Sample ID :BIR-AGULTS	D01	7	FAX: (907) 561-5301
	20 BFM 11.7.94		20 100 20 100 2011
	0.020 U mg/Kg	EPA 8260	08/25 09/05 SGM
Isopropylbenzene	0.020 U mg/Kg	EFA 8260	08/25 09/05 BGM 08/25 09/05 BGM
n-Isopropyltoluene	0.020 U mg/Kg	EPA 8260	<b>00, 20 0.</b>
Methylene Chioride	0.280 mg/Kg	EPA 8260	<b>40</b> / <b></b>
Napthalene	0.020 U mg/Kg	EPA 8260	
n-Propylbenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 <b>SGM</b> 08/25 09/05 <b>SGM</b>
Styrene	0.020 U mg/Kg	EPA 8260	08/25 09/05 8GM
1112-Tetrachloroethane	0.020 U mg/Kg	EPA 8260	08/25 09/05 <b>SGM</b>
1122-Tetrachloroethane	0.020 U mg/Kg	EPA 8260	0B/25 09/05 SGM
Tetrachloroethene	0.097 mg/Kg	EPA 8260	08/25 09/05 SGM
Toluene 1,2,3-Trichlorobenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SGM
1,2,3-Trichlorobenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SGM
1,1,1-Trichloroethane	<b>0.020 U mg/</b> Kg	EPA 8260	08/25 09/05 SGM
1,1,2-Trichloroethane	0.020 U mg/Kg	EPA 8260	08/25 09/05 SGM
Trichloroethene	0.020 U mg/Kg	EPA 8260	08/25 09/05 -SGM
Trichlorofluoromethane	0.020 U mg/Kg	EPA 8260 EPA 8260	08/25 09/05 <b>SGM</b>
1,2,3-Trichloropropane	0.020 U mg/Kg	EPA 8260	0B/25 09/05 <b>5GM</b>
1,2,4-Trimethylbenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SGM
1,3,5-Trimethylbenzene	0.020 U mg/Kg	EPA 8260	08/25 09/05 SGM
Vinyl Chloride	0.020 U mg/Kg	EPA 8260	08/25 09/05 SGM
p+m-Xylene	0.020 U mg/Kg	EPA 8260	08/25 09/05 <b>SGM</b>
o-Xylene	0.020 U mg/Kg		· · · · · · · · · · · · · · · ·
		EPA 8270(J)-	F. 3
Semivolatile Organics	2.40 U mg/Kg	EPA 8270 i	09/03 02/20
Phenol	2.40 U mg/Kg	EPA 8270	09/04 09/28 htt
bis(2-Chloroethyl)ether	2.40 U mg/Kg	EPA 8270 \	09/04 09/28 HTT 09/04 09/28 HTT
2-Chlorophenol	2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT
1,3-Dichlorobenzene	2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT
1,4-Dichlorobenzene	2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT
Benzyl Alcohol	2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT
1,2-Dichlorobenzene	2.40 U mg/Kg	EPA 8270	09/04 09/28 HTT
2-Methylphenol bis(2-Chloroisopropyl)e	2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT
4-Methylphenol	2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT
n-Nitroso-di-n-Propylam	2.40 U mg/Kg	EPA 8270 EPA 8270	09/04 09/28 MTT
Hexachloroethane	2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT
Nitrobenzene	2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT
Isophorone	2.40 U mg/Kg	EPA 8270	09/04 09/28 HTT
2-Nitrophenol	2.40 U mg/Kg 2.40 U mg/Kg	EPA 8270	09/04 09/28 HTT
2.4-Dimethylphenol		EPA 8270	09/04 09/28 MTT 09/04 09/28 MTT
Renzoic Acid		EPA 8270	
his(2-Chloroethoxy)meth	2.40 U mg/Kg 2.40 U mg/Kg	EPA 8270	09/04 09/28 MTT 09/04 09/28 MTT
2 4-Dichlorophenol	2.40 U mg/Kg	EPA 8270	09/04 09/28 HTT
1,2,4-Trichlorobenzene	2.40 U mg/Kg	EPA 8270	09/04 09/28 HT
Naphthalene	2.40 U mg/Kg	EPA 8270	09/04 09/28 MT
4-Chloroaniline	2.40 U mg/Kg	EPA 8270	09/04 09/28 MT
Hexachlorobutadiene	2.40 U mg/K9	EPA 8270	09/04 09/28 HT
4-Chloro-3-Methylphenol	2.40 U mg/Kg	EPA 8270	D. 1 7 2 09/04 09/28 MT
2-Methylnaphthalene Hexachlorocyclopentadie	2.40 U mg/Kg	EPA 8270	09/04 09/28 MT
2,4,6-Trichlorophenol	2.40 U mg/Kg	EPA 8270 →	<b>'</b>
2,4,0-111010101010101			



6555 Member of the SGS Group (Société Générale de Surveillance)

**20**E



### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL L						
NCE IPO	REPOR	T of ANA	Lysis	/(0, 10 jA)	5633 8 STRE	ET
hemlab Ref. # :93.4305-1			/ 11	/(V . /Al	CHORAGE, AK 99	518
lient Sample ID :BTR-AOC14-6	D01		Is a CHIVE	1 CO I had a	FAX: (907) 561-5	301
	B FM 11.794		( )			
atrix :501L 9320	Divilia		4 \		· · · · · · · · · · · · · · · · · · ·	Milet
a 4 r m-1-blorophenol	2.40 U	mg/Kg	EPA 8270(J)-F		04 09/28	MTT
2,4,5-Trichlorophenol	2.40 U	mg/Kg	EPA 8270 ,		04 09/28	HTT
2-Chloronaphthalene	2.40 U	ng/Kg	EPA 8270		/04 09/28	MTT
2-Nitroaniline	2.40 U	mg/Kg	EPA 8270	09/	/04 09/28	HTT
Dimethylphthalate			EPA 8270	09/	/04 09/28	MTT
Acenaphthylene	2.40 U	mg/Kg	EPA 8270		/04 09/28	MTT
2,6-Dinitrotoluene	2.40 U	mg/Kg		09.	/04 09/28	MTT
3-Nitroaniline	2.40 U	mg/Kg	EPA 8270		/04 09/28	HTT
Acenaphthene	2.40 U	mg/Kg	EPA 8270		/04 09/28	HTT
2,4-Dinitrophenol	2.40 U	mg/Kg	EPA 8270		/04 09/28	MTT
4-Nitrophenol	2.40 U	<b>mg/</b> Kg	EPA 8270		/04 09/2B	HTT
Dibenzofuran	2.40 U	ng/Kg	EPA 8270	05,	/04 U3/20	MTT
2,4-Dinitrotoluene	2.40 U	mg/Kg	EPA 8270		/04 09/28	
Z,4-Dinitiotolucie	2.40 U	mg/Kg	EPA 8270		/04 09/28	MTT
Diethylphthalate	2.40 U	mg/Kg	EPA 8270		/04 09/2B	HTT
4-Chlorophenyl-Phenylet	2.40 U	mg/Kg	EPA 8270		/04 09/28	MTT
Fluorene	2.40 U	mg/Kg	EPA 8270		/04 09/28	TTM
4-Nitroaniline	2.40 U	mg/Kg	EPA 8270	09	/04 09/28	MTT
4,6-Dinitro-2-Methylphe		mg/Kg	EPA 8270		/04 09/28	MTT
n-Nitrosodiphenylamine			EPA 8270	09	/04 09/28	MTT
4-Bromophenyl-Phenyleth	2.40 U	mg/Kg	EPA 8270	09	/04 09/28	MTT
Hexachlorobenzene	2.40 U	mg/Kg	EPA 6270		/04 09/28	MTT
Pentachlorophenol	2.40 U	mg/Kg	EPA 0270		/04 09/28	MTT
Phenanthrene	1.96 J	mg/Kg	EPA 8270		0/04 09/28	MTT
Anthracene	2.40 U	mg/Kg	EPA 8270	h	0/04 09/28	MTT
di-n-Butylphthalate	2.40 U	<b>mg∕</b> Kg	EPA 8270		0/04 09/28	MTT
Fluoranthene	1.70 J	mg/Kg	EPA 8270		09/28	HTT
Pyrene	1.26 J	mg/Kg	EPA 8270			MTT
Butylbenzylphthalate	2.40 U	mg/Kg	EPA 8270		9/04 09/28	MIT
3,3-Dichloropenzidine	2.40 U	mg/Kg	EPA 8270	03	9/04 09/28	
5,5-DICHIOLODENZIGING	2.40 U	mg/Kg	EPA 8270		9/04 09/28	MTT
Benzo(a)Anthracene	2.40 U	mg/Kg	EPA 8270		9/04 09/28	HTT
Chrysene	2.40 U	mg/Kg	EPA 8270		9/04 09/28	MIT
bis(2-Ethylhexyl)Phthal	2.40 U	mg/Kg	EPA 8270		3/04 09/28	HTT
di-n-Octylphthalate	2.40 U	ng/Kg	EPA 8270	09	9/04 09/28	HTT
Benzo(b)Fluoranthene	27.17		EPA 8270	0	9/04 09/28	MTT
Benzo(k)Fluoranthene	_ , ,, _	mg/Kg	EPA 8270	01	9/04 09/28	HTT
Benzo(a)Pyrene	2.40 U	mg/Kg	EFA 8270	0,	9/04 09/28	HTT
Indeno(1,2,3-cd)Pyrene	2.40 U	mg/Kg	EPA 6270	Ō,	9/04 09/28	HTT
Dibenz(a,h)Anthracene	2.40 U	mg/Kg	EPA 8270	Ŏ,	9/04 09/28	MTT
Benzo(g,h,i)Perylene	2.40 U	mag∕Kg	EPA B270 →	•	<i>y</i> , <b>c</b>	_
Delimo (3) to 1 = 1 = 1						
Sample Preparation			EPA 3050 Digest			
Total Metals Analysis			_	- /-		
TOO Corpor TOF			EPA	n/a	0/27 00/20	DFI
ICP Screen, ICF	2000	mg/Kg	EPA 6010		8/27 08/29	DET
Aluminum	58 U	mg/Kg	EPA 6010		8/27 08/29	
Antimony	5.8 Ü	mg/Kg	EPA 6010		8/27 08/29	DFT
Arsenic			EPA 6010	0	8/27 08/29	DF
Barium	20	mg/Kg	EPA 6010	0	8/27 08/29	DF
Beryllium	2.9 U	ng/Kg	EPA 6010	0	8/27 08/29	DET
Cadmium	2.9 U	mg/Kg		Č	8/27 08/29	DE
Calcium	5600	mg/Kg	EPA 6010	č	8/27 08/29	DFI
Chromium	9.3	mg/Kg	EPA 6010	č	8/27 08/29	วิธา
Cobalt	5.8 U	mg/Kg	EPA 6010	`		

11,8.94



Cobalt



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908		DED	ORT of ANA	TVCTC			D 671	
Chemlab Ref.# Client Sample ID Matrix	:93.4305-1		ORI OI AM	T1313	Qualifer	TI	5633 B STF Drage, ak 0 El: (907) 562: IX: (907) 561:	2343
Copper Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc	6.6 5700 9.2 2900 69 2.9 7.7 290 5.8 2.9 80 0.30 6.7	บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010	J	38/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/26 08/27	08/29 08/29 08/29 08/29 08/29 08/29 08/29	DE DE DE DE DE COE KA DE DE
TOC, Soil	3360		mg/Kg	PSEP Ref L	ab	en ch	ys .	194

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyze

LT = Less Than

GT = Greater Than



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See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# Client Sample ID :BTR-AOC14-SD01 DUPLICATE

:93.4305-3

5633 B STREET ANCHORAGE, AK 99518

Matrix

TEL: (907) 562-2343

:SOIL \$5.75

FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

:70009

Ordered By Project Name

:RAY MORRIS

:10/04/93

Project#

:DEW LINE

Report Completed :08/21/93

PWSID

:BARTER

:UA

Collected Received

WORK Order

@ 20:10 h: :08/24/93 @ 12:00

Released By :

Technical Director: STEPHEN, C. EDE

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Sample Preparation Total Metals Analysis ICP Screen, ICF Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc	2400 58 5.8 23 2.9 7200 6.2 5.8 9.9 7000 6.4 3400 87 2.9 5.7 290 5.8 2.9 90 0.30 7.2 33	U U U U U U U U U U U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 3050 Digest  EPA EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010	n/a	08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27	08/29 08/29 08/29 08/29 08/29 08/29 08/29 08/28 08/29	DF DF DF DF DF DF DF DF DF DF DF DF DF D

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than



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ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-2

Client Sample ID :BTR-AOC14-SD01 SPIKE

Matrix

:SOIL 5520

Suif 12595

WORK Order :70009

Report Completed :10/04/93

Collected :08/21/93 @ 20:10 h Received :08/24/93 @ 12:00

**5633 B STREET** 

SGM

SGM

SGM

SGM

SGM

SGM

SGM

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SGM

**EGM** 

М

08/25 09/05

08/25 09/05

08/25 09/05

08/25 09/05

08/25 09/05

08/25 09/05

08/25 09/05

08/25 09/05

08/25 09/05

08/25 09/05

FAX: (907) 561-5301

ANCHORAGE, AK 99518 TEL: (907) 562-2340

Technical Director: STEPHEN C. EDE

Released By :

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS :DEW LINE

Project Name Project# :BARTER

PWSID :UA

Dichlorodifluoromethane

1,1-Dichloroethane

1,1-Dichloroethene

cis-1,2-Dichloroethene

trans1,2-Dichloroethene

1,2-Dichloropropane

1,3-Dichloropropane 2,2-Dichloropropane 1,1-Dichloropropene

1,1-Dichloropropene

1,2-Dichloroethane

Voneston Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L. SEE QC PACKAGE

FOR SPIKE CONCENTRATIONS. FOR 8270 ANALYSIS BOTH SURROGATE AND SPIKE RECOVERIES FOR THIS SAMPLE WERE VERY LOW. SPIKE DUP WERE ACCEPTABLE. J = INDICATES AN ANALYTE WHOSE CONCENTRATION IS ESTIMATED BECAUSE THE ANALYTE'S CONCENTRATION IS DETECTED BELOW THE CALIBRATION RANGE.

Allowable Ext. Results Qual Units Method Limits Date Date Tni Volatile Organics EPA 8260 Benzene 0.453 mg/Kg EPA 8260 08/25 09/05 SG Bromobenzene 0.020 U mg/Kg EPA 8260 08/25 09/05 SG Bromochloromethane 0.020 U mg/Kg EPA 8260 08/25 09/05 SG Bromodichloromethane 0.020 U mg/Kg EPA 8260 08/25 09/05 SG. Bromoform Bromomethane 0.020 U mg/Kg EPA 8260 08/25 09/05 G 0.020 U mg/Kg EPA 8260 08/25 09/05 SG: n-Butylbenzene 0.020 ប mg/Kg EPA 8260 08/25 09/05 SG: sec-Butylbenzene tert-Butylbenzne 0.020 U mg/Kg EPA 8260 08/25 09/05 SG: 0.020 บ mg/Ka EPA 8260 08/25 09/05 Carbon Tetrachloride 0.020 ប mg/Kq EPA 8260 08/25 09/05 Chlorobenzene 0.440 mg/Kg EPA 8260 08/25 09/05 Chloroethane 0.020 U mg/Kg EPA 8260 08/25 09/05 SGI Chloroform U 0.020 mg/Kg EPA 8260 08/25 09/05 SGI Chloromethane 0.020 0.020 U mg/Kg EPA 8260 08/25 09/05 SGI 2-Chlorotoluene U mg/Kg EPA 8260 08/25 09/05 SGI 4-Chlorotoluene 0.020 U mg/Kg EPA 8260 08/25 09/05 SGI 12Dibromo3Chloropropane 0.020 U 1,2-Dibromoethane 0.020 U mg/Kg EPA 8260 08/25 09/05 SGI mg/Kg EPA 8260 08/25 09/05 SGI 1,2-Dibromoethane 0.020 บ EPA 8260 mg/Kg 08/25 09/05 SGN EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 Dibromomethane 0.020 U mg/Kq 08/25 09/05 SGL 1,2-Dichlorobenzene 0.020 U mg/Kg 08/25 09/05 SGY. 1,3-Dichlorobenzene 0.020 U mg/Kg 08/25 09/05 SGM 1,4-Dichlorobenzene 0.020 U mg/Kg 08/25 09/05

OC

0.020 0.020

0.020 0.286

0.020 0.020

0.020

0.020

0.020 U

0.020 U

U

U

U

U

U

U

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

EPA 8260

EPA 8260

EPA 8260

EPA 8260

EPA 8260

EPA 8260

EPA 8260



ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908		20.00		
Chemlab Ref.# :93.4305-2	REF	PORT of AN	ALYSIS	
				5633 B STREET
Client Sample ID :BTR-AOC14-SD01	SPIKE			ANCHORAGE, AK 9951E
matrix :SOTE SSA				TEL: (907) 562-2343 FAX: (907) 561-5301
$\sigma u \nu$				FXX: (907) 361-5301
D-6-15				
House - L. 1	020 ປ	mg/Kg	EPA 8260	08/25 09/05 St
Hexachlorobutadiene 0.0	020 U	mg/Kg	EPA 8260	08/25 09/05 SC
Isopropylbenzene 0.0	020 ປ	mg/Kg	EPA 8260	· · · · · · · · · · · · · · ·
p-Isopropyltoluene 0.0	020 ປັ	mg/Kg		08/25 09/05 SC
	ງ20 ປັ		EPA 8260	08/25 09/05 SC
Napthalene 0.2		mg/Kg	EPA 8260	08/25 09/05 sc
- n		mg/Kg	EPA 8260	<b>08/25 09/0</b> 5 sc
CL		mg/Kg	EPA 8260	08/25 09/05 sc
Styrene 0.0	)20 บ	mg/Kg	EPA 8260	08/25 09/05 SC
1112-Tetrachloroethane 0.0	)20 บ	mg/Kg	EPA 8260	
1122-Tetrachloroethane 0.0		mg/Kg		08/25 09/05 sc
Tetrachloroethene 0.0			EPA 8260	0 <b>8/25</b> 09/05 sc
Toluene 0.5		mg/Kg	EPA 8260	08/25 09/05 s∈
1 2 2		mg/Kg	EPA 8260	08/25 09/05 S€
1 7 4 6		mg/Kg	EPA 8260	08/25 09/05 SC
1,2,4-Trichlorobenzene 0.0		mg/Kg	EPA 8260	08/25 09/05 SC
1,1,1-Trichloroethane 0.0	)20 ປ	mg/Kg	EPA 8260	
1,1,2-Trichloroethane 0.0	20 U	mg/Kg	EPA 8260	08/25 09/05 SG
Trichloroethene n 3		mg/Kg		08/25 09/05 SG
Trichlorofluoromethane 0.0			EPA 8260	<b>08/25 09/0</b> 5 SG
1 7 7 m-1-11		mg/Kg	EPA 8260	0 <b>8/25</b> 09/05 sg
1 7 / 1	_	mg/Kg	EPA 8260	0 <b>8/25 09/0</b> 5 SG
1 D E m_1 - 1 - 1		mg/Kg	EPA 8260	08/25 09/05 SG
1,3,5-Trimethylbenzene 0.0	ט 20	mg/Kg	EPA 8260	
Vinyl Chloride 0.0	20 U	mg/Kg	EPA 8260	
p+m-Xylene 0.0		mg/Kg		08/25 09/05 SG:
.o-Xylene 0.0			EPA 8260	<b>08/25 09/05</b> SG:
0.0	20 0	mg/Kg	EPA 8260	08/25 09/05 SG
Semivolatile Organics				
DL 1			EPA 8270	
hi-(2 01)		mg/Kg	EPA 8270	09/04 09/28 MT
bis(2-Chloroethyl)ether 0.2	40 U	mg/Kg	EPA 8270	
2-Chlorophenol 0.0		mg/Kg	EPA 8270	09/04 09/28 MT
1,3-Dichlorobenzene 0.2		mg/Kg		09/04 09/28 MT
1,4-Dichlorobenzene 0.0			EPA 8270	09/04 09/28 MT
Benzyl Alcohol 0.2		mg/Kg	EPA 8270	09/04 09/28 MT
1 7 51-11 .		mg/Kg	EPA 8270	09/04 09/28 MT
7 Made		mg/Kg	EPA 8270	09/04 09/28 MT.
hi=/2 013		mg/Kg	EPA 8270	09/04 09/28 HT
bis(2-Chloroisopropyl)e 0.2	40 U	mg/Kg	EPA 8270	
4-Methylphenol 0.24	40 ti	mg/Kg	EPA 8270	
n-Nitroso-di-n-Propylam n n				09/04 09/28 MTI
Hexachloroethane 0.24		mg/Kg	EPA 8270	09/04 09/28 MTT
11 dama =		mg/Kg	EPA 8270	09/04 09/28 MTT
Tanhana		mg/Kg	EPA 8270	09/04 09/28 MTT
7 1114		mg/Kg	EPA 8270	09/04 09/28 MTT
2 4 Di=		mg/Kg	EPA 8270	09/04 09/28 MTT
2,4-Dimethylphenol 0.24	40 U	mg/Kg	EPA 8270	
Benzoic Acid 0 24		mg/Kg		09/04 09/28 MTT
Dis(2-Chloroethoxy)Meth 0.22			EPA 8270	09/04 09/28 MTT
2,4-Dichlorophenol 0 24		mg/Kg	EPA 8270	09/04 09/28 HTT
1 2 4 m-z-t-1		mg/Kg	EPA 8270	09/04 09/28 MTT
Monhahai		mg/Kg	EPA 8270	09/04 09/28 MTT
4 Chi 12 1		mg∕Kg	EPA 8270	09/04 09/28 MTT
linea-bloom to the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second seco		mg/Kg	EPA 8270	09/04 09/28 MTT
Hexachlorobutadiene 0.24	10 U	mg/Kg	EPA 8270	
4-Chloro-3-Methylphenol 0.04	11	mg/Kg	EPA 8270	
2-Methylnaphthalene 0.24		mg/Kg		09/04 09/28 MTT
			EPA 8270	09/04 09/28 MTT



Barium

Cadmium

Calcium

Beryllium

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES REPORT of ANALYSIS Chemlab Ref.# :93.4305-2 5633 B STREET Client Sample ID :BTR-A0C14-SD01
Matrix :SOIL ANCHORAGE, AK 99518 SPIKE TEL: (907) 562-2343 FAX: (907) 561-5301 12895 Hexachlorocyclopentadie 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MI 2,4,6-Trichlorophenol 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MI 2,4,5-Trichlorophenol 0.240 U mg/Kg EPA 8270 09/04 09/28 IM 2-Chloronaphthalene 0.240 U mg/Kg EPA 8270 09/04 09/28 MT 2-Nitroaniline 0.240 mg/Kg U **EPA** 8270 09/04 09/28 MT Dimethylphthalate 0.240 mg/Kg **EPA** 8270 09/04 09/28 MT Acenaphthylene 0.240 U mg/Kg EPA 8270 09/04 09/28 MT 2,6-Dinitrotoluene 0.240 U mg/Kg EPA 8270 09/04 09/28 MT 3-Nitroaniline 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MT Acenaphthene 0.074 mg/Kg_ **EPA** 8270 09/04 09/28 MT 2,4-Dinitrophenol 0.240 U mg/Kg EPA 8270 09/04 09/28 MT 4-Nitrophenol 0.022 J mg/Kg EPA 8270 09/04 09/28 MT Dibenzofuran 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MT 2,4-Dinitrotoluene 0.040 J mg/Kg EPA 8270 09/04 09/28 MT Diethylphthalate 0.240 U mg/Kg EPA 8270 09/04 09/28 MT 4-Chlorophenyl-Phenylet 0.240 U ma/Ka EPA 8270 MT 09/04 09/28 Fluorene 0.240 U mg/Kg EPA 8270 09/04 09/28 MT 4-Nitroaniline 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MT 4,6-Dinitro-2-Methylphe 0.240 U mg/Kg EPA 8270 09/04 09/28 MT n-Nitrosodiphenylamine 0.240 U mg/Kg EPA 8270 09/04 09/28 MT. 4-Bromophenyl-Phenyleth 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MT. Hexachlorobenzene 0.240 H mg/Kg **EPA** 8270 09/04 09/28 Pentachlorophenol 0.240 U mg/Kg EPA 8270 09/04 09/28 Phenanthrene 0.206 J mg/Kg **EPA** 8270 09/04 09/28 AT. Anthracene 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MT. di-n-Butylphthalate 0.062 J mg/Kg **EPA** 8270 09/04 09/28 MT Fluoranthene 0.230 J **EPA** 8270 mg/Kg 09/04 09/28 MTI Pyrene 0.208 J mg/Kg **EPA** 8270 09/04 09/28 MTI Butylbenzylphthalate 0.240 U ma/Ka EPA 8270 09/04 09/28 MTI 3,3-Dichlorobenzidine 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MTI Benzo(a)Anthracene 0.240 U mg/Kg EPA 8270 09/04 09/28 ITM Chrysene 0.240 U mg/Kg EPA 8270 09/04 09/28 MTT bis(2-Ethylhexyl)Phthal 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MTT di-n-Octylphthalate 0.240 U mg/Kg EPA 8270 09/04 09/28 MTT Benzo(b)Fluoranthene 0.240 U mg/Kg EPA 8270 09/04 09/28 MTT Benzo(k)Fluoranthene 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MTT Benzo(a)Pyrene 0.240 U mq/Kq EPA 8270 09/04 09/28 MTT Indeno(1,2,3-cd)Pyrene 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MTT Dibenz(a,h)Anthracene 0.240 U mg/Kg EPA 8270 09/04 09/28 MTT Benzo(g,h,i)Perylene 0.240 U mg/Kg **EPA** 8270 09/04 09/28 MTT Sample Preparation EPA 3050 Digest Total Metals Analysis ICP Screen, ICF EPA n/a Aluminum 2500 mg/Kg **EPA** 6010 08/27 08/29 DFL Antimony 86 mg/Kg EPA 6010 08/27 08/29 DFL Arsenic 110 mg/Kg **EPA** 6010 08/27 08/29 DFL



140

43

54

9800

EPA 6010

**EPA** 6010

**EPA** 6010

**EPA** 6010

08/27 08/29

08/27 08/29

08/27 08/29

08/27 08/29

DFL

DFL

DFL

mg/Kg

mg/Kg

mg/Kg

mg/Kg



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4305-2   SPIKE   S633 B STREET Client Sample ID :BTR-A0014-SD01   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SOIL   SPIKE   SPIKE   SOIL   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE   SPIKE	SINCE 1908				
Client Sample ID :BTR-A0C14-SD01   SPIKE   Matrix   :SOIL   SSOIL	Chemlab Ref.#	:93.4305-2	EPORT of ANAI	LYSIS	5633 B STREE
Cobalt 105 mg/Kg EPA 6010 08/27 08/29 DE Copper 120 mg/Kg EPA 6010 08/27 08/29 DE Iron 6800 mg/Kg EPA 6010 08/27 08/29 DE Lead 120 mg/Kg EPA 6010 08/27 08/29 DE Magnesium 5300 mg/Kg EPA 6010 08/27 08/29 DE Manganese 180 mg/Kg EPA 6010 08/27 08/29 DE Molybdenum 110 mg/Kg EPA 6010 08/27 08/29 DE Nickel 110 mg/Kg EPA 6010 08/27 08/29 DE Nickel 110 mg/Kg EPA 6010 08/27 08/29 DE Selenium 1300 mg/Kg EPA 6010 08/27 08/29 DE Selenium 1300 mg/Kg EPA 6010 08/27 08/29 DE Silver 18 mg/Kg EPA 6010 08/27 08/29 DE Sodium 1300 mg/Kg EPA 6010 08/27 08/29 DE Sodium 1300 mg/Kg EPA 6010 08/27 08/29 DE Sodium 1300 mg/Kg EPA 6010 08/27 08/29 DE Sodium 1300 mg/Kg EPA 6010 08/27 08/29 DE Sodium 1300 mg/Kg EPA 6010 08/27 08/29 DE Thallium 3.0 mg/Kg EPA 6010 08/27 08/29 DE Thallium 3.0 mg/Kg EPA 6010 08/27 08/29 DE Thallium 3.0 mg/Kg EPA 6010 08/27 08/29 DE		ID :BTR-A <del>0014</del> -SD01 SPIK :SOIL SSA :3015	Ε		ANCHORAGE, AK 99518 TEL: (907) 562-2340
Vanadium     110     mg/kg     EPA 6010     08/26 08/28 KF       Zinc     140     mg/kg     EPA 6010     08/27 08/29 DF       Begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin begin	Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium	110 105 120 6800 120 5300 180 110 110 1300 110 18 1300 3.0 110	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010	08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/27 08/29 DE 08/26 08/28 KJ 08/27 08/29 DE

See Special Instructions Above See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.#

:93.4305-11 Client Sample ID :BTR-AGC14-SD01 SPIKE DUPLICATE
Matrix :SOIL SS28
SWF
12-545

WORK Order

:70009

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2340 FAX: (907) 561-5301

Report Completed :10/04/93 Collected :08/21/93 @ 20:10 h: Received :08/24/93 @ 12:00 h:

Technical Director: STEPHEN C. EDE

Released By :

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS :DEW LINE

Project Name Project# :BARTER PWSID

:UA

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Volatile Organics				EPA 8260				
Bēnzene	0.453		mg/Kg	EPA 8260		09/25	09/05	C.C
Bromobenzene	0.020	U	mg/Kg	EPA 8260			09/05	SC .SC
Bromochloromethane	0.020	Ū	mg/Kg	EPA 8260			09/05	
Bromodichloromethane	0.020	Ū	mg/Kg	EPA 8260			09/05	SG SG
Bromoform	0.020	U	mg/Kg	EPA 8260			09/05	SG
Bromomethane	0.020	Ü	mg/Kg	EPA 8260			09/05	SG
n-Butylbenzene	0.020	บ	mg/Kg	EPA 8260			09/05	SG
sec-Butylbenzene	0.020	U	mg/Kg	EPA 8260			09/05	SG.
tert-Butylbenzne	0.020	U	mg/Kg	EPA 8260			09/05	G:
Carbon Tetrachloride	0.020	U	mg/Kg	EPA 8260			09/05	SG:
Chlorobenzene	0.445		mg/Kg	EPA 8260			09/05	S <b>G</b> :
Chloroethane	0.020	U	mg/Kg	EPA 8260			09/05	SG:
Chloroform	0.020	U	mg/Kg	EPA 8260			09/05	SGI
Chloromethane	0.020	U	mg/Kg	EPA 8260			09/05	SGI
2-Chlorotoluene	0.020	Ū	mg/Kg	EPA 8260			09/05	SGI SGI
4-Chlorotoluene	0.020	บิ	mg/Kg	EPA 8260				
Dibromochloromethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SG!
12Dibromo3Chloropropane	0.020	Ü	mg/Kg	EPA 8260		08/25		SGI
1,2-Dibromoethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SGI
Dibromomethane	0.020	Ü	mg/Kg			08/25		SG
1,2-Dichlorobenzene	0.020	Ü	mg/Kg	EPA 8260 EPA 8260		08/25		SGI
1,3-Dichlorobenzene	0.020	บั	mg/Kg	EPA 8260		08/25		SG1
1,4-Dichlorobenzene	0.020	Ŭ	mg/Kg	EPA 8260		08/25		SGI
Dichlorodifluoromethane	0.020	Ŭ	mg/Kg	EPA 8260		08/25		SGF
1,1-Dichloroethane	0.020	Ü	mg/Kg	EPA 8260		08/25		SGM
1,2-Dichloroethane	0.020	U	mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloroethene	0.294	•	mg/Kg	EPA 8260		08/25 08/25		SGM
cis-1,2-Dichloroethene	0.020	U	mg/Kg	EPA 8260				SGK
trans1,2-Dichloroethene	0.020	-	mg/Kg	EPA 8260		08/25 08/25		SGM SGM
1,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
1,3-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
2,2-Dichloropropane	0.020		mg/Kg	EPA 8260		08/25		SGM
1,1-Dichloropropene	0.020		mg/Kg	EPA 8260		08/25		SGM
Ethylbenzene	0.020		mg/Kg	EPA 8260		08/25		SGM
Hexachlorobutadiene	0.020	_	mg/Kg	EPA 8260		08/25		SGM
Isopropylbenzene	0.020	•	mg/Kg	EPA 8260		08/25		SGM
p-Isopropyltoluene	0.020	_	mg/Kg	EPA 8260				
	<del>-</del>	-	3/ 1/3	EFA 0200		08/25	03/03	M



ENVIRONMENTAL LABORATORY SERVICES

	SINCE 1908		
•	Chemlab Ref.# :93.4305-11	REPORT of ANALYSIS	
			5633 B STREE
	Client Sample ID :BTR-AOC14-Matrix :SOII SS2	SD01 SPIKE DUPLICATE	ANCHORAGE, AK 9951
	Matrix :SOIL SSZØ		TEL: (907) 562-234 FAX: (907) 561-530
	וכרבו. כיו	5	(***) ***
	Methylene Chloride Napthalene	0.020 U mg/Kg EPA 8260	08/25 09/05 s
	napenatene	0.2/1 mg/Kg FPA 8260	<b>* - *</b>
	n-Propylbenzene Styrene	0.020 U mg/Kg EPA 8260	00.40=
		0.020 U mg/Kg FPA 8260	00/25 09/05 8
	1112-Tetrachloroethane	0.020 U mg/Kg FPA 8260	08/25 09/05 S
	1122-Tetrachloroethane	0.020 U mg/Kg FPA 8260	08/25 09/05 S 08/25 09/05 S 08/25 09/05 S 08/25 09/05 S
	Tetrachloroethene Toluene	0.020 U mg/Kg FPA 8260	
		0.550 mg/Kg FPA 8260	08/25 09/05 S
	1,2,3-Trichlorobenzene	0.020 U mg/Kg EPA 8260	08/25 09/05 s
	1,2,4-Trichlorobenzene	0.020 U mg/Kg EPA 8260	08/25 09/05 S
	1,1,1-Trichloroethane	0.020 U mg/Kg EPA 8260	08/25 09/05 Sc
	1,1,2-Trichloroethane	0.020 U mg/Kg EPA 8260	08/25 09/05 SC
	Trichloroethene	0.402 mg/Kg FPA 8260	08/25 09/05 SC
	Trichlorofluoromethane	0.020 U mg/Kg FPA 8260	08/25 09/05 SC
	1,2,3-Trichloropropane	0.020 U mg/Kg FPA 8260	08/25 09/05 SC
	1,2,4-Trimethylbenzene	0.020 U mg/Kg FPA 8260	08/25 09/05 SC
	1,3,5-Trimethylbenzene	0.020 U mg/Kg FPA 8260	08/25 09/05 S(
	Vinyl Chloride p+m-Xylene	0.020 U mg/Kg EPA 8260	08/25 09/05 SC 08/25 09/05 SC
	o-Xileue	0.020 U mg/Kg FPA 8260	
	O ANTENE	0.020 U mg/Kg EPA 8260	
	Semivolatile Organics		08/25 09/05 SG
	Phenol	EPA 8270	
	bis(2-Chloroethyl)ether	1.60 mg/Kg EPA 8270	09/04 09/29 MT
	2-Chlorophenol	0.240 U mg/Kg FPA 8270	09/04 09/29 MT 09/04 09/29 MT
	1,3-Dichlorobenzene	1.54 mg/Kg EPA 8270	09/04 09/29 MT
	1,4-Dichlorobenzene	0.240 U mg/Kg EPA 8270	09/04 09/29 MT
	Benzyl Alcohol	1.47 mg/Kg EPA 8270	09/04 09/29 MT
	1,2-Dichlorobenzene	1.00 U mg/Kg EPA 8270	09/04 09/29 MT
	2-Methylphenol	0.240 U mg/Kg EPA 8270	09/04 09/29 MT
	bis(2-Chloroisopropyl)e	0.240 U mg/Kg EPA 8270	09/04 09/29 MT
	4-Methylphenol	0.240 U mg/Kg EPA 8270	09/04 09/29 MT
	n-Nitroso-di-n-Propylam	0.240 U mg/Kg EPA 8270 1.77 mg/Kg EPA 8270	09/04 09/29 MT
	Hexachloroethane	0 240 tr "9/1/9 EFA 02/0	09/04 09/29 MT.
	Nitrobenzene	0 240 ··· ··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··	09/04 09/29 MT.
	Isophorone	0 240 EFR 6270	09/04 09/29 MT
	2-Nitrophenol	0.240 11	09/04 09/29 MT
	2,4-Dimethylphenol	0 240 tr	09/04 09/29 MTT
	Benzoic Acid	0 240	09/04 09/29 MTT
	bis(2-Chloroethoxy)Meth	0 240 ··· ··· ··· ··· ·· ·· ·· ·· ·· ·· ·· ·	09/04 09/29 MTT
	2,4-Dichlorophenol	0.240 11	09/04 09/29 MTT
	1,2,4-Trichlorobenzene	1 71 "S/NS EFA 02/0	09/04 09/29 MTT
	Naphthalene	0 240 ·· ·· ·· ·· ·· ·· ·· ·· ·· Eth 02/0	09/04 09/29 MTT
	4-Chloroaniline	0 340 "S/NS ECA 02/0	09/04 09/29 MTT
	Hexachlorobutadiene	0 240 ti marka EFA 0270	09/04 09/29 MTT
	4-Chloro-3-Methylphenol	1 72	09/04 09/29 MTT
	2-Methylnaphthalene	0 240 ti marka	09/04 09/29 MTT
	Hexachlorocyclopentadie	0 240 ti	09/04 09/29 MTT
	2,4,6-Trichlorophenol	0 240 :: "S/119 EFA 02/0	09/04 09/29 MTT
	2,4,5-Trichlorophenol	0 240 ·· ·························· ELFA 02/0	09/04 09/29 MTT
	2-Chloronaphthalene	0.240 U mg/Kg EPA 8270 0.240 U mg/Kg EPA 8270	09/04 09/29 HTT
		ELA 02/0	09/04 09/29 MTT





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4305-11 5633 B STREET Client Sample ID :BTR-AOC14-SD01 SPIKE DUPLICATE
Matrix SOIL SS20, ANCHORAGE, AK 99518 TEL: (907) 562-2343 :SOIL Sul FAX: (907) 561-5301 12-595 2-Nitroaniline 0.240 U mg/Kg EPA 8270 09/04 09/29 MT Dimethylphthalate 0.240 U mg/Kg EPA 8270 09/04 09/29 MT Acenaphthylene 0.240 II mg/Kg EPA 8270 09/04 09/29 MT 2,6-Dinitrotoluene 0.240 11 mg/Kg EPA 8270 09/04 09/29 MT 3-Nitroaniline 0.240 mg/Kg EPA 8270 09/04 09/29 MT Acenaphthene 1.99 mg/Kg EPA 8270 09/04 09/29 MT 2,4-Dinitrophenol 0.240 U . mg/Kg EPA 8270 09/04 09/29 MT 4-Nitrophenol 2.04 mg/Kg EPA 8270 09/04 09/29 MT. Dibenzofuran 0.240 U mg/Kg EPA 8270 09/04 09/29 MT. 2,4-Dinitrotoluene 1.76 mg/Kg _ EPA 8270 09/04 09/29 MT Diethylphthalate 0.240 U EPA 8270 mg/Kg 09/04 09/29 MT. 4-Chlorophenyl-Phenylet 0.240 U EPA 8270 mg/Kq 09/04 09/29 MT. Fluorene 0.240 U mg/Kg EPA 8270 09/04 09/29 MT 4-Nitroaniline 0.240 U mg/Kg EPA 8270 09/04 09/29 MT 4,6-Dinitro-2-Methylphe 0.240 U mg/Kg EPA 8270 09/04 09/29 MTT n-Nitrosodiphenylamine 0.240 U mg/Kg EPA 8270 09/04 09/29 ITM. 4-Bromophenyl-Phenyleth 0.240 U mg/Kg EPA 8270 09/04 09/29 MTI Hexachlorobenzene 0.240 U mg/Kg EPA 8270 09/04 09/29 MTT Pentachlorophenol 2.35 mg/Kg EPA 8270 09/04 09/29 MTT Phenanthrene 0.926 mg/Kg EPA 8270 09/04 09/29 MTT Anthracene 0.240 U mg/Kg EPA 8270 09/04 09/29 MTT di-n-Butylphthalate 2.08 mg/Kg EPA 8270 09/04 09/29 TT Fluoranthene 0.655 EPA 8270 mg/Kg 09/04 09/29 Pyrene 2.15 mg/Kg EPA 8270 09/04 09/29 пTT Butylbenzylphthalate 0.240 U mg/Kg EPA 8270 09/04 09/29 MTT 3,3-Dichlorobenzidine 0.240 mg/Kg U EPA 8270 09/04 09/29 MTT Benzo(a)Anthracene 0.240 U mg/Kg EPA 8270 09/04 09/29 MTT Chrysene 0.240 U mg/Kg EPA 8270 09/04 09/29 MTT bis(2-Ethylhexyl)Phthal 1.83 mq/Kq EPA 8270 09/04 09/29 MTT di-n-Octylphthalate 0.240 U mg/Kg **EPA** 8270 09/04 09/29 MTT Benzo(b)Fluoranthene

** See Sample Remarks Above

Benzo(k)Fluoranthene

Indeno(1,2,3-cd)Pyrene

Dibenz(a,h)Anthracene

Benzo(g,h,i)Perylene

Benzo(a)Pyrene

0.240

0.240

0.240

0.240

0.240

0.240

U

U

U

U

U

U

mg/Kg

mg/Kg

mg/Kq

mg/Kg

mg/Kg

mg/Kg

EPA 8270

**EPA** 8270

EPA 8270

EPA 8270

EPA 8270

EPA 8270

D = Secondary dilution.

UA = Unavailable

NA = Not AnalyzedLT = Less Than

09/04 09/29

09/04 09/29

09/04 09/29

09/04 09/29

09/04 09/29

09/04 09/29

MTT

MTT

MTT

MTT

MTT

MTT

GT = Greater Than



See Special Instructions Above

U = Undetected, Reported value is the practical quantification limit.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4305-7

Client Sample ID :BTR-AOC14-SW01
Matrix :WATER SMI

PWSID

11.4.94

FAX: (907) 561-5301 WORK Order

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name Project#

:DEW LINE :BARTER

:UA

Report Completed :10/04/93 Collected

:70009

:08/21/93 @ 19:05 hr :08/24/93 @ 12:00 hr

5633 B STREET

ANCHORAGE, AK 99518 TEL: (907) 562-2343

Received

Released By :

Technical Director: STEPHEN, C. EDE

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
	Volatile Organics				EPA 8260				
	Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	121.7
	Bromobenzene	0.0010	U	mg/L	EPA 8260			09/02	KW.
	Bromochloromethane	0.0010	U	mg/L	EPA 8260			09/02	KW:
	Bromodichloromethane	0.0010	U	mg/L	EPA 8260			09/02	KM!
	Bromoform	0.0010	U	mg/L	EPA 8260			09/02	KWI
	Bromomethane	0.0010	U	mg/L	EPA 8260			09/02	KWI
	n-Butylbenzene	0.0010	U	mg/L	EPA 8260			09/02	KMJ
	sec-Butylbenzene	0.0010	U	mg/L	EPA 8260			09/02	KMF
	tert-Butylbenzne	0.0010	U	mg/L	EPA 8260			09/02	KWI
•	. Carbon Tetrachloride	0.0010	Ŭ	mg/L	EPA 8260			09/02	
	Chlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	KWF
	Chloroethane	0.0010	U	mg/L	EPA 8260			09/02	KW
	Chloroform	0.0010	U	mg/L	EPA 8260		09/02		KWF
	Chloromethane	0.0010	U	mg/L	EPA 8260		09/02		KWP
	2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02		KWE
	4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02		KWE
	Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02		KWM
	12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02		KWM
	1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260				KWM
	Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02		KWM
	1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02		KWM
	1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02 09/02		KWH
	1,4-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260				KWM
	Dichlorodifluoromethane	0.0010	บ	mg/L	EPA 8260		09/02		KWH
	1.1-Dichloroethane	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
	1.2-Dichloroethane	010028		mg/L	EPA 8260		09/02		KWM
	1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02 09/02		KWM KWM
	cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260				
	trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02		KWM
	1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02		KWM
	1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
	2,2-Dichloropropane	0.0010	Ŭ	mg/L	EPA 8260		09/02		KWM
	1,1-Dichloropropene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
	Ethylbenzene	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
	Hexachlorobutadiene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
	Isopropylbenzene	0.0010	บิ	mg/L	EPA 8260		09/02		KWM
	p-Isopropyltoluene	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
			-		LA OZOU		09/02	U3/U2	KWH



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4305-7 5633 B STREET Client Sample ID :BTR-A<del>OC14</del>-SW01 Matrix :WATER SSED ANCHORAGE, AK 99518 TEL: (907) 562-2343 SMF FAX: (907) 561-5301 11.494 Methylene Chloride 0.0010 mg/L EPA 8260 09/02 09/02 K Napthalene 0.0027 mg/L **EPA** 8260 09/02 09/02 K n-Propylbenzene 0.0010 U mg/L **EPA** 8260 09/02 09/02 K Styrene 0.0010 11 mg/L EPA 8260 09/02 09/02 K 1112-Tetrachloroethane 0.0010 U mg/L **EPA** 8260 09/02 09/02 K 1122-Tetrachloroethane 0.0010 H mg/L EPA 8260 09/02 09/02 KF Tetrachloroethene 0.0010 U mg/L **EPA** 8260 09/02 09/02 K Toluene 0.0010 U mg/L EPA 8260 09/02 09/02 K¥. 1,2,3-Trichlorobenzene 0.0010 U mg/L **EPA** 8260 09/02 09/02 KW 1,2,4-Trichlorobenzene 0.0010 U mg/L EPA 8260 09/02 09/02 KW 1,1,1-Trichloroethane 0.0010 U mg/L **EPA** 8260 09/02 09/02 K₩ 1,1,2-Trichloroethane 0.0010 H mq/L EPA 8260 09/02 09/02 KW Trichloroethene 0.0010 U mg/L EPA 8260 09/02 09/02 KW Trichlorofluoromethane 0.0010 U mg/L EPA 8260 09/02 09/02 KW 1,2,3-Trichloropropane 0.0010 U 09/02 09/02 mq/L EPA 8260 KW 09/02 KW 09/02 KW 09/02 KW: 09/02 KWI

KWI

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08/28 09/04

08/28 09/04

08/28 09/04

08/28 09/04

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1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02 09/02
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02 09/02
p+m-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02
o-Xylene	0.0010	U	mg/L	EPA 8260	09/02 09/02
Semivolatile Organics				EPA 8270	
Phenol	0.010	U	mg/L	EPA 8270	08/28 09/04
.bis(2-Chloroethyl)ether	0.010	U	mg/L	EPA 8270	08/28 09/04
2-Chlorophenol	0.010	U	mg/L	EPA 8270	08/28 09/04
1,3-Dichlorobenzene	0.010	Ü	mg/L	EPA 8270	08/28 09/04
1,4-Dichlorobenzene	0.010	Ū	mg/L	EPA 8270	•
Benzyl Alcohol	0.010	Ū	mg/L	EPA 8270	08/28 09/04
1,2-Dichlorobenzene	0.010	Ü	mg/L	EPA 8270	08/28 09/04
2-Methylphenol	0.010	Ü	mg/L	EPA 8270	08/28 09/04
bis(2-Chloroisopropyl)e	0.010	Ü	mg/L		08/28 09/04
4-Methylphenol	0.010	Ü	mg/L	EPA 8270	08/28 09/04
n-Nitroso-di-n-Propylam	0.010	Ü	_	EPA 8270	08/28 09/04
Hexachloroethane	0.010	Ü	mg/L	EPA 8270	08/28 09/04
Nitrobenzene	0.010	Ü	mg/L	EPA 8270	08/28 09/04
Isophorone	0.010	บ	mg/L	EPA 8270	08/28 09/04
2-Nitrophenol	0.010	Ü	mg/L	EPA 8270	08/28 09/04
2,4-Dimethylphenol	0.010	Ü	mg/L	EPA 8270	08/28 09/04
Benzoic Acid	0.010	U	mg/L	EPA 8270	08/28 09/04
bis(2-Chloroethoxy)Meth	0.010	Ü	mg/L	EPA 8270	08/28 09/04
2,4-Dichlorophenol	0.010	Ü	mg/L	EPA 8270	08/28 09/04
1,2,4-Trichlorobenzene	0.010	บ	mg/L	EPA 8270	08/28 09/04
Naphthalene	0.010	Ü	mg/L	EPA 8270	08/28 09/04
4-Chloroaniline	0.010		mg/L	EPA 8270	08/28 09/04
Hexachlorobutadiene		U	mg/L	EPA 8270	08/28 09/04
4-Chloro-3-Methylphenol	0.010	U	mg/L	EPA 8270	08/28 09/04
2-Methylnaphthalene	0.010	U	mg/L	EPA 8270	08/28 09/04
Hexachlorocyclopentadie	0.010	U	mg/L	EPA 8270	08/28 09/04
DEAGLICULOUVULODENTANIA	0 030	11			

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Hexachlorocyclopentadie

2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

2-Chloronaphthalene

EPA 8270

EPA 8270

**EPA** 8270

EPA 8270

mg/L

mg/L

mg/L

mg/L



ENVIRONMENTAL LABORATORY SERVICES

	REPORT of ANALY	BIS		5633 B STREET	
Chanlah Ref. \$ :93.4305-7	N 41			ANCHORAGE, AK 99518 TEL: (907) 562-2343	, ,
Chemlab Ref. 193.4305-7 Client Sample ID :BTR-AOC14-6	8W01 7 5 5 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8			FAX: (907) 561-5301	:
Client Sample 1 WATER 9520	BFM11.8.94 3 5				
Matrix		EPA 8270	01	3/20 42/4	GV
2-Nitroaniline	0.010 U mg/L 0.010 U mg/L	EPA 8270	0	U/ MU V V/ V ·	GV GV
Dimethylphthalate	0.010 U mg/L 0.010 U mg/L	EPA 8270	0	U/ AU   V // V ·	GV
acenaphthylene	0.010 U mg/L	EPA 8270	. 0	8/28 09/04 8/28 09/04	GV
2.6-Dinitrotoluene	0.010 U mg/L	EPA 8270	Ŭ	B/28 09/04	GV
3-Nitroaniline	0.010 U mg/L	EPA 8270	0	8/28 09/04	GV
Acenaphthene	0.010 U mg/L	EPA 8270	Ŏ	8/28 09/04	GV
2,4-Dinitrophenol	0.010 U mg/L	EPA 8270	Ö	8/28 09/04	GV
4-Nitrophenol	0.010 U mg/L	EPA 8270	C	8/28 09/04	<b>GA</b>
Dibenzofuran 2,4-Dinitrotoluene	0.010 U mg/L	EPA 8270 EPA 8270		8/28 09/04	GV
Diethylphthalate	0.010 U mg/L	EPA 8270	(	8/28 09/04	GV
4-Chlorophenyl-Phenylet	0.010 U mg/L	EPA 8270	(	8/28 09/04	GA.
Fluorene	0.010 U mg/L 0.010 U mg/L	EPA 8270		08/28 09/04	ga Ga
4_N(troamiline	0.010 U mg/L 0.010 U mg/L	EPA 8270		08/28 09/04 08/28 09/04	GV
4 6-Dinitro-2-Methylphe	0.010 U mg/L	EPA 8270		08/28 09/04	GΫ
www.t+woeog/bbenArewine	0.010 U mg/L	EPA 8270	,	08/28 09/04	GV
4-Bromophenyl-Phenyleth	0.010 U mg/L	EPA 8270		08/28 09/04	<b>GV</b>
Hexachlorobenzene	0.010 U mg/L	EPA 8270		08/28 09/04	GV
Pentachlorophenol Phenanthrene	0.010 U mg/L	EPA 8270		08/28 09/04	GV
Anthracene	0.010 U mg/L	EPA 8270		08/28 09/04	GV
di-n-Butylphthalate	0.010 U mg/L	EPA 8270		08/28 09/04	gv gv
Fluoranthene	0.010 U mg/L 0.010 U mg/L	EPA 8270		08/28 09/04	GV
Pyrene	0.010 U mg/L	EPA 8270		08/28 09/04	GV
Butvibenzylphthalate	0.010 U5% mg/L 0.010 U5(64)mg/L	EPA 8270		08/28 09/04 08/28 09/04	GV
3.3-Dichlorobenzidine	0.010 U mg/L	EPA 8270		08/28 09/04	GV
Benzo(a)Anthracene	0.010 U mg/L	EPA 8270		08/28 09/04	GV
Chrysene	0.010 U mg/L	EPA 8270		08/28 09/04	GV
bis (2-Ethylhexyl)Phthal	0.010 U mg/L	EPA 8270 EPA 8270		08/28 09/04	GV
di-n-Octylphthalate Benzo(b)Fluoranthene	0.010 U mg/L	EPA 8270		08/28 09/04	GV
Benzo(k)Fluoranthene	0.010 U mg/L	EPA 8270		08/28 09/04	gv Gv
Danzo(2)PVIEDE	0.010 U mg/L 0.010 U mg/L	EPA 8270		08/28 09/04	GV
todeno(1,2,3-cd)Pyrene	0.010 U mg/L 0.010 U mg/L	EPA 8270		08/28 09/04 08/28 09/04	GV
n(benz(a.n)Anthracene	0.010 U mg/L	EPA 8270		08/20 03/04	•
Benzo(g,h,i)Perylene			n/a		
		EPA 9060	IVE		
TOC, Nonpurgable	28.3-36.2 mg/L	EPA 9060 EPA 9060			
TOC RangeTOC Concentration	31.4 mg/L	FLW 2000			
	84 J A mg/L	EPA 160.2		09/02 09/02	GPS
Residue, Non-Filterable	84 J II MG/L	EPA 160.1	500	08/30 08/31	RJI
Residue, Filterable (TDS)	903 JA mg/L	<del></del>			
-	ALW 1				

validator comments compiled by BFM 11.894

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



SGS Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above

See Sample Remarks Above U = Undetected, Reported value is the practical quantification limit.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4305-8

Client Sample ID :BTR-AOC14-SW01 SPIKE

Matrix

PWSID

5633 B STREE ANCHORAGE, AK 99518 TEL: (907) 562-2340

FAX: (907) 561-530

Client Name Ordered By

:WATER SS20 SWI 12-99 :ICF KAISER ENGINEERING

:RAY MORRIS

Project Name Project#

:DEW LINE :BARTER

:UA

WORK Order Report Completed :10/04/93 Collected

:70009

:08/21/93 @ 19:05 h :08/24/93 @ 12:00 h

Received Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L. 8270: FOR SPIKE

RECOVERIES AND RSD, PLEASE REFER TO QC SUMMARY SHEETS.

Parameter	Results (	QC Qual	Units	Met	thod	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics Phenol				EPA	8270				
bis(2-Chloroethyl)ether	0.092		mg/L	EPA	8270		08/28	09/04	G
2-Chlorophenol		Ü	mg/L	EPA	8270			09/04	Ğ
1,3-Dichlorobenzene	0.128		mg/L	EPA	8270			09/04	G
1,4-Dichlorobenzene		U	mg/L	EPA	8270			09/04	G
Benzyl Alcohol	0.123		mg/L	EPA	8270			09/04	Ğ
1,2-Dichlorobenzene		U	mg/L	EPA	8270			09/04	Ğ
2-Methylphenol		U	mg/L	EPA	8270			09/04	
bis(2-Chloroisopropyl)e		U	mg/L	EPA	8270			09/04	G.
4-Methylphenol		U	mg/L		8270			09/04	Ğ.
n-Nitroso-di-n-Propylam		U	mg/L	EPA	8270			09/04	Ğ.
Hexachloroethane	0.167	••	mg/L	EPA				09/04	Ğ'
Nitrobenzene		Ü	mg/L	EPA				09/04	Ğ٦
Isophorone		U	mg/L	EPA			08/28		Ğ٦
2-Nitrophenol		U ••	mg/L	EPA :			08/28		Ğ١
2,4-Dimethylphenol		U	mg/L	EPA 8			08/28	09/04	G۲
Benzoic Acid		U	mg/L	EPA (			08/28		G1
bis(2-Chloroethoxy)Meth		U	mg/L	EPA 8			08/28		G١
2,4-Dichlorophenol		U	mg/L	EPA 8			08/28	09/04	GV
1,2,4-Trichlorobenzene		U	mg/L	EPA 8			08/28	09/04	GV
Naphthalene	0.142 0.020 t		mg/L	EPA 8			08/28	09/04	GV
4-Chloroaniline	0.020 t	J	mg/L	EPA 8			08/28	09/04	GV
Hexachlorobutadiene	0.020	_	mg/L	EPA 8			08/28	09/04	GV
4-Chloro-3-Methylphenol	0.161	_	mg/L	EPA 8			08/28	09/04	<b>GV</b>
2-Methylnaphthalene		_	mg/L	EPA 8			08/28	09/04	<b>GV</b>
Hexachlorocyclopentadie	0.020 U 0.020 U	_	mg/L	EPA 8			08/28		<b>GV</b>
2,4,6-Trichlorophenol	0.020 U	-	mg/L	EPA 8			08/28	09/04	<b>GV</b>
2,4,5-Trichlorophenol	0.020 U	_	mg/L	EPA 8			08/28	09/04	<b>GV</b>
2-Chloronaphthalene	0.020 U	_	mg/L	EPA 8			08/28		GV
2-Nitroaniline	0.020 U		mg/L	EPA 8			08/28		G <b>V</b>
Dimethylphthalate	0.020 U		mg/L	EPA 8			08/28		G <b>V</b>
Acenaphthylene	0.020 U		mg/L	EPA 8			08/28		GV
2,6-Dinitrotoluene	0.020 U		mg/L	EPA 8			08/28		G <b>V</b>
3-Nitroaniline	0.020 U		mg/L	EPA 8			08/28		<b>GV</b>
Acenaphthene	0.163	'	mg/L	EPA 8			08/28		G <b>V</b>
2,4-Dinitrophenol	0.020 y		mg/L	EPA 8			08/28 (		V
•	0.020 0	' '	mg/L	EPA 8	270		08/28 (	09/04	<b>V</b>



Fluoranthene

Pyrene

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

0.030

0.020

0.174

U

REPORT of ANALYSIS Chemlab Ref.# :93.4305-8 5633 B STREET Client Sample ID ANCHORAGE, AK 99518 :BTR-AOC14-SW01 :WATER SS200 FOR FOR THE SWIF SPIKE TEL: (907) 562-2343 Matrix FAX: (907) 561-5301 12595 4-Nitrophenol 0.057 mg/L EPA 8270 08/28 09/04 Dibenzofuran ( 0.020 П mg/L **EPA** 8270 08/28 09/04 2,4-Dinitrotoluene ( 0.172 mg/L EPA 8270 08/28 09/04 ( Diethylphthalate 0.020 U mg/L **EPA** 8270 08/28 09/04 4-Chlorophenyl-Phenylet C 0.020 U mg/L **EPA** 8270 08/28 09/04 • Fluorene 0.020 T mg/L **EPA 8270** 08/28 09/04 4-Nitroaniline C 0.020 U· mg/L EPA 8270 08/28 09/04 G 4,6-Dinitro-2-Methylphe 0.020 U mg/L **EPA** 8270 08/28 09/04 n-Nitrosodiphenylamine G 0.020 U mg/L EPA 8270 08/28 09/04 G 4-Bromophenyl-Phenyleth 0.020 U mg/L_ **EPA** 8270 08/28 09/04 G Hexachlorobenzene 0.020 11 mg/L EPA 8270 08/28 09/04 G Pentachlorophenol 0.042 mq/L EPA 8270 08/28 09/04 G Phenanthrene 0.020 U EPA 8270 mg/L 08/28 09/04 G Anthracene 0.020 H mg/L EPA 8270 08/28 09/04 di-n-Butylphthalate G

mg/L

mg/L

mg/L

EPA 8270

EPA 8270

EPA 8270

08/28 09/04 G Butylbenzylphthalate 0.020 U mg/L EPA 8270 08/28 09/04 G 3,3-Dichlorobenzidine 0.020 U mg/L **EPA** 8270 08/28 09/04 G Benzo(a) Anthracene 0.020 U mg/L **EPA** 8270 08/28 09/04 G. Chrysene 0.020 U mq/L **EPA** 8270 08/28 09/04 G. bis(2-Ethylhexyl)Phthal 0.020 U mq/L EPA 8270 08/28 09/04 G' di-n-Octylphthalate 0.020 Ħ mg/L EPA 8270 08/28 09/04 G١ Benzo(b)Fluoranthene 0.020 11 mq/L EPA 8270 08/28 09/04 G Benzo(k)Fluoranthene 0.020 П mg/L EPA 8270 08/28 09/04 G۲ Benzo(a)Pyrene 0.020 U mq/L EPA 8270 08/28 09/04 G١ Indeno(1,2,3-cd)Pyrene 0.020 U mg/L **EPA** 8270 08/28 09/04 G1 Dibenz(a,h)Anthracene 0.020 U mq/L EPA 8270 08/28 09/04 G١ Benzo(g,h,i)Perylene 0.020 mg/L **EPA** 8270 08/28 09/04 G١

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

08/28 09/04

08/28 09/04

G

G

LT = Less Than GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4305-9

Client Sample ID :BTR-AOC14-SW01 SPIKE DUPLICATE Matrix :WATER SS20

ANCHORAGE, AK 99518 TEL: (907) 562-2343

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS :DEW LINE

Project Name Project# PWSID

:BARTER :UA

WORK Order

:70009 Report Completed :10/04/93

Collected Received

:08/21/93 @ 19:05 hr :08/24/93 @ 12:00 hr

5633 B STREET

FAX: (907) 561-5301

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETER M.G., JERRY M., AND M.L.

Parameter	Results (	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
Semivolatile Organics Phenol bis(2-Chloroethyl)ether 2-Chlorophenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene Benzyl Alcohol 1,2-Dichlorobenzene 2-Methylphenol bis(2-Chloroisopropyl)e 4-Methylphenol n-Nitroso-di-n-Propylam Hexachloroethane Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Benzoic Acid bis(2-Chloroethoxy)Meth 2,4-Dichlorophenol 1,2,4-Trichlorobenzene Naphthalene 4-Chloro-3-Methylphenol 2-Methylnaphthalene Hexachlorocyclopentadie 2,4,5-Trichlorophenol 2,4,5-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene 3-Nitroaniline Nitroaniline Acenaphthene	0.095 0.022 157 0.022 0.134 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022 0.022		Units  mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/	Method  EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	Limits	Date 08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28	Date 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04 09/04	Ini o o o o o o o o o o o o o o o o o o o
2,4-Dinitrophenol 4-Nitrophenol	0.022 t 0.065	U	mg/L mg/L	EPA 8270 EPA 8270		08/28 08/28	09/04	GV V



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# **:93.4**305-9 5633 B STREET Client Sample ID :BTR-A9C14-SW01 SPIKE DUPLICATE ANCHORAGE, AK 99516 TEL: (907) 562-2343 :WATER SSZØ Matrix FAX: (907) 561-5301 12.595 Dibenzofuran 0.022 U mg/L EPA 8270 08/28 09/04 2,4-Dinitrotoluene 0.184 mg/L EPA 8270 08/28 09/04 ( Diethylphthalate 0.022 U mg/L **EPA 8270** 08/28 09/04 4-Chlorophenyl-Phenylet ( 0.022 U mg/L **EPA** 8270 08/28 09/04 Fluorene ( 0.022 u mg/L **EPA** 8270 08/28 09/04 ( 4-Nitroaniline 0.022 11 mq/L **EPA** 8270 08/28 09/04 4,6-Dinitro-2-Methylphe ( 0.022 11 mg/L EPA 8270 08/28 09/04 n-Nitrosodiphenylamine ( 0.022 u mg/L EPA 8270 08/28 09/04 4-Bromophenyl-Phenyleth C 0.022 U mg/L EPA 8270 08/28 09/04 Hexachlorobenzene 0.022 mg/[r EPA 8270 08/28 09/04 C Pentachlorophenol 0.043 mg/L **EPA** 8270 08/28 09/04 G Phenanthrene 0.022 Ħ mq/L **EPA** 8270 08/28 09/04 C Anthracene 0.022 [] mg/L **EPA** 8270 di-n-Butylphthalate 08/28 09/04 G 0.069 mg/L EPA 8270 08/28 09/04 Fluoranthene G 0.022 U mg/L EPA 8270 08/28 09/04 Pyrene G 0.191 mg/L EPA 8270 08/28 09/04 Butylbenzylphthalate G 0.022 U mg/L **EPA** 8270 08/28 09/04 3,3-Dichlorobenzidine G 0.022 U mg/L **EPA** 8270 08/28 09/04 Benzo(a)Anthracene G 0.022 U mg/L **EPA** 8270 08/28 09/04 G Chrysene 0.022 U mg/L EPA 8270 08/28 09/04 G bis(2-Ethylhexyl)Phthal 0.022 U mg/L **EPA** 8270 08/28 09/04 di-n-Octylphthalate G. 0.022 U mq/L **EPA** 8270 08/28 09/04 Benzo(b)Flüoranthene G. 0.022 U mg/L EPA 8270 08/28 09/04 Benzo(k)Fluoranthene G. 0.022 U mg/L EPA 8270 08/28 09/04 Benzo(a)Pyrene G 0.022 U mg/L EPA 8270 08/28 09/04 Indeno(1,2,3-cd)Pyrene G' 0.022 Ū mg/L **EPA** 8270 08/28 09/04 Dibenz(a,h)Anthracene G. 0.022 U mg/L EPA 8270 08/28 09/04 G١ Benzo(g,h,i)Perylene 0.022 U

mg/L

**EPA** 8270

See Special Instructions Above See Sample Remarks Above

= Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

08/28 09/04

G1

LT = Less Than GT = Greater Than



ICF ID	S <b>≤</b> 2ø BTR- <del>A0014</del> -S01	\$\$2∕5 BTR- <del>A0C14</del> -S02	SS <i>Zø</i> BTR- <del>A0C14</del> -S03	<i>S</i> 52ø BTR- <del>A0614</del> -S03	<i>S</i> S 2¢ BTR- <del>A0614</del> -S04
F&BI Number	402	400	385	386	380
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	96	95	91		98
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93		#6-08/23/93
Leaded Gas					
JP-4	< 50	< 50	< 50		< 50
Lube Oil	< 100	< 100	< 100		< 100
Diesel	<505	<505	<50 J		<50 エ
Spike Level					
Unknown Semi-volatile					
Pentacosane	83	87	104		107
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan l					
DDE					
Dieldrin Dieldrin					
Endrin Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level	#100 00/04/00	#1 0 0 0010 A100		#4 0 0 00/04/00	#100000000
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93		#1&2-08/24/93	#1&2-08/24/93
CCI4 TCA	< 0.02	< 0.02			
	< 0.02	< 0.02		40.00 <i>C</i>	<0.02 P2
Benzene	< 0.02	< 0.02		<0.02€	<0.02 R
TCE	< 0.02	< 0.02		-0.00	-0.00 O
Toluene	< 0.02	< 0.02		< 0.02 K	<0.02 R
PCE	< 0.02	< 0.02			10.00 4
Ethylbenzene	< 0.02	< 0.02		< 0.02 R	<0.02 R
Xylenes	< 0.04	< 0.04		< 0.04 R	<0.04 R
Gasoline	<2	<2		£2 <50J	£2200J
Spike level					00
BFB	85	102		97	86

(141 my Sout

	6.00	_			
ICF ID	SS <b>Z</b> ø BTR- <del>AOC14</del> -SD01	<i>\$\$2ø</i> BTR- <del>80614</del> -SD02	&s 2 <i>9</i> / BTR- <del>A9014</del> -SD02	SS <i>2</i> ø BTR- <del>A0C14</del> -SD02	SS2ø BTR- <del>AOC14</del> SD02
F&BI Number	378	381	382	384 dup	384 dup
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight	86	0/20/00	84	84	73
Sequence Date	#6-08/23/93	#6-08/23/93	04		73
Leaded Gas	#0-00/20/00	#0-00/23/33		#6-08/23/93	
JP-4	< 50	< 50		<b>~</b> F0	
Lube Oil	< 100	< 100		< 50	
Diesel	<50 J			< 100	
Spike Level	< 50 0	<505		< 50	
Unknown Semi-volatile	140 6::				
Pentacosane	140 biogenic material	100		405	
	105	103		105	
Sequence Date				#6-08/23/93	
PCB 1221				< 0.1	
PCB 1232				< 0.1	
PCB 1016				< 0.1	
PCB 1242				< 0.1	
PCB 1248				< 0.1	
PCB 1254				< 0.1	
PCB 1260				< 0.1	
Spike Level					
Dibutyl Chlorendate				84	
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/24/93		#1&2-08/24/93	#1&2-08/24/93	
CCI4					
TCA					
Benzene	< 0.02		< 0.02 K	< 0.02	
TCE					
Toluene	< 0.02		< 0.02 R	< 0.02	
PCE					
Ethylbenzene	< 0.03		< 0.02 R	< 0.02	
Xylenes	< 0.06		<0.04 R	< 0.04	
Gasoline	<del>42</del>		<2 R	<2	
Spike level					
BFB	102		97	102	

ICF ID ((.)( Sync) F&BI Number Sample Type	ළS2න BTR- <del>A0C14</del> -SD02 384 ms soil	SS 2¢ BTR- <del>A0C14</del> -SD02 384 msd soil	SS 2Ø BTR <del>A0C14</del> ·SW01 397 dup water	≤≤∠∞ BTR- <del>A0614</del> SW01 396 ms water	SS 20 BTR-A <del>0614</del> SW01 395 msd water
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight Sequence Date Leaded Gas	#6-08/23/93	#6-08/23/93			
JP-4 Lube Oil					
Diesel	100	120			
Spike Level	500	500			
Unknown Semi-volatile					
Pentacosane	101	101			
Sequence Date	#6-08/23/93	#6-08/23/93			
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254	102	113			
PCB 1260					
Spike Level	5	5			
Dibutyl Chlorendate	110	106			
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93
CCI4	96	96	<1	75	101
TCA	101	106	<1	80	89
Benzene	95	88	<1	70	119
TCE	86	93	<1	74	110
Toluene	95	103	<1	83	112
PCE	86	105	<1	87	100
Ethylbenzene	113	117	<1	83	98
Xylenes	92	120	<2	87	98
Gasoline Seiter Level	4	•	< 50		4
Spike level	1	1	40r	1	1
BFB	84	95	105	133	102

ICFID Will can	≤\$2¢ BTR <del>:A0614</del> -SW01	\$22 <i>φ</i> BTR- <del>A0014-</del> SW01	&\$ <i>2©</i> BTR- <del>A0C14</del> -SW02	SS <i>2©</i> BTR- <del>A0C14</del> -SW02	SS2& BTR- <del>A0014</del> -SW03
F&BI Number	388	398	403	406	407
Sample Type	water	water	water	water	water
Date Received	8/23/93	8/23/93	8/23/93	8/23/93	8/23/93
% Dry Weight					
Sequence Date	#6-08/23/93		#6-08/23/93		#6-08/23/93
Leaded Gas					
JP-4	< 1000		< 1000		< 1000
Lube Oil	< 2000		< 2000		< 2000
Diesel	< 1000 🍱		<1000 丁		< 1000 J
Spike Level					•
Unknown Semi-volatile					
Pentacosane	57		62		58
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date					
alpha-BHC					
beta-BHC					
gamma-BHC					
delta-BHC					
Heptachlor					
Aldrin					
Heptachlor Epoxide					
Endosulfan I					
DDE					
Dieldrin					
Endrin					
Endosulfan II					
DDD					
Endrin Aldehyde					
DDT					
Endosulfan Sulfate					
Endrin Ketone					
Methoxy Chlor					
Chlordane					
Dibutyl Chlorendate					
Spike Level					
Vol Sequence		#199 00104100		"4000000000	
CC14		#1&2-08/24/93		#1&2-08/24/93	
TCA					
Benzene		<1		<1	
TCE					
Toluene		<1		<1	
PCE		_			
Ethylbenzene		<1		<1	
Xylenes		<2	_	<2	
Gasoline		550 K1003	5	450 L100	J
Spike level					
BFB		98		101	

ICFID WILLAGON

SS259 BTR-<del>A0014</del>-SW03

F&BI Number

Sample Type **Date Received** 

410 water 8/23/93

% Dry Weight Sequence Date Leaded Gas

JP-4 Lube Oil Diesel

Spike Level

Unknown Semi-volatile

Pentacosane Sequence Date PCB 1221 PCB 1232 **PCB 1016 PCB 1242** 

PCB 1248 PCB 1254 PCB 1260

Spike Level **Dibutyl Chlorendate** 

Sequence Date alpha-BHC beta-BHC

gamma-BHC delta-BHC

Heptachlor Aldrin

Heptachlor Epoxide

Endosulfan I

DDE Dieldrin Endrin

Endosulfan II

DDD

Endrin Aldehyde

DDT

Endosulfan Sulfate **Endrin Ketone Methoxy Chlor** Chlordane

**Dibutyl Chlorendate** 

Spike Level

#1&2-08/24/93 **Vol Sequence** CCI4 <1 <1 TCA Benzene <1 TCE <1 Toluene <1 **PCE** <1 Ethylbenzene <1 <2

Xylenes S58 L1005 Gasoline

Spike level

**BFB** 

86

ANALYTICAL DATA SHEETS FOR THE JP-4 SPILL (SS21) (Formerly identified as AOC15)

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

**Chemlab** Ref.# :93.4301-11 Client Sample ID :BTR-AOC15-S02

:SOIL SSZI Soutzay Matrix

:70003 :ICF KAISER ENGINEERING WORK Order :RAY MORRIS

Report Completed :10/04/93 :08/21/93 @ 18:45 Collected :08/24/93 @ 12:00 hrs. Received

Technical Director: STEPHEN C. EDE

Allowable Evt

5633 B STREET ANCHORAGE, AK 99518

hrs.

TEL: (907) 562-2343 FAX: (907) 561-5301

Released By :

Client Name ordered By

Project Name project#

:DEW LINE :BARTER

:UA PWSID

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., M. LEMMA, AND PETER E.M.

			QC			Allowable	Ext.	Anal	T 8 L
	Parameter R	<b>?es</b> ults	Qual	Units	Method	Limits	Date	Date	Init
					EPA 8260				
	Volatile Organics	0.200	U	mg/Kg	EPA 8260		08/25	09/09	KWM
	Benzene	0.200	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
	Bromobenzene	0.200	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
	Bromochloromethane	0.200	Ü	mg/Kg	EPA 8260		08/25	09/09	KWM
	Bromodichloromethane	0.200	บ	mg/Kg	EPA 8260			09/09	KWM
	Bromoform	0.200	U	mg/Kg	EPA 8260			09/09	KWM
	Bromomethane		D	<b>mg</b> /Kg	EPA 8260			09/09	KWM
	- Butylbenzene		ם	<b>wa</b> ∖ka ,	EPA 8260			09/09	KWM
	sec-Butylbenzene	M U 34E	D	mg/Kg '	EPA 8260			09/09	KWM
	ert-Butylbenzne	0.200	U	mg/Kg	EPA 8260			09/09	KWM
J	arbon Tetrachloride	0.200	Ü	<b>mg</b> /Kg	EPA 8260			09/09	KWM
	Chlorobenzene	0.200	บ	mg/Kg	EPA 8260			09/09	KWM
	Chloroethane	0.200	U	mg/Kg	EPA 8260			09/09	KWM
	Chloroform	0.200	U	mg/Kg	EPA 8260			09/09	KWM
	Chloromethane	0.200	_	mg/Kg	EPA 8260			09/09	KWM
	2-Chlorotoluene	0.200		mg/Kg	EPA 8260			09/09	KWM
	4-Chlorotoluene	0.200		mg/Kg	EPA 8260			09/09	KWM
	Dibromochloromethane				EPA 8260			09/09	KWM
	12Dibromo3Chloropropane	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,2-Dibromoethane	0.200		mg/Kg	EPA 8260			09/09	KWM
	Dibromomethane	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,2-Dichlorobenzene	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,3-Dichlorobenzene	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,4-Dichlorobenzene	0.200		mg/Kg	EPA 8260			09/09	KWM
	Dichlorodifluoromethane	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,1-Dichloroethane	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,2-Dichloroethane	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,1-Dichloroethene	0.200		mg/Kg	EPA 8260			09/09	KWM
	cis-1,2-Dichloroethene	0.200		mg/Kg	EPA 8260			09/09	KWM
	trans1,2-Dichloroethene	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,2-Dichloropropane	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,3-Dichloropropane	0.200		mg/Kg	EPA 8260			09/09	KWM
	2,2-Dichloropropane	0.200		mg/Kg	EPA 8260			09/09	KWM
	1,1-Dichloropropene	0.200		mg/Kg				09/09	KWM
	*Ethylbenzene			mg/Kg				09/09	KWM
	Hexachlorobutadiene	0.200		mg/Kg	EPA 8260 EPA 8260			09/09	KWM
	Isopropylbenzene	## 2.2.2	D 5	mg/Kg/	550 03C0			5 09/09	KWM
	p-Isopropyltoluene	2.50	5 <b>D</b> .:	mg/Kg 🖽 🔠	; EPA 0400		VO, 2.	. 0., 0.,	

ENVIRONMENTAL LABORATORY SERVICES

	Ri	EIPOI	RT of ANA	LYSIS			5633 B STR	REE
10h Ref.# :93.4301-11							ORAGE, AK 9	9518
chemlab Ref.# :93.4301-11 client Sample ID :BTR-AOC15-	S02 (						EL: (907) 562-1 AX: (907) 561-1	
client sample :SOIL SC21	of all						1X. (307) 301	
Matrix :SUIL 952	DM 2 L					00.425	00.400	UTIM
Methylene Chloride	0.200	U	<b>mg</b> /Kg		8260		09/09	KWM
Methylene chioride		a	mg/Kg		8260		09/09	KWM
Napthalene		D	mg/Kg	EPA	8260		09/09	KWM
n-Propylbenzene		Ü	mg/Kg	EPA	8260		09/09	KWM
Styrene		บ	mg/Kg	EPA	8260		09/09	KWM
1112-Tetrachloroethane		Ü	mg/Kg		8260		09/09	KWM
1122-Tetrachloroethane		Ŭ	mg/Kg	EPA	8260		09/09	KWM
Tetrachloroethene	24.0	_		EPA	8260		09/09	KWM
		U	mg/Kg		8260		09/09	KWM
1,2,3-Trichlorobenzene		บั	mg/Kg		8260		09/09	KWM
1,2,4-Trichlorobenzene		Ü	mg/Kg		8260		09/09	KWM
1,1,1-Trichloroethane		Ü	mg/Kg		8260	08/25	09/09	KWM
1,1,2-Trichloroethane		Ü	mg/Kg		8260	08/25	09/09	KWM
Trichloroethene	• • •	U	mg/Kg	FPA	8260	08/25	09/09	KWM
Trichlorofluoromethane	• •			EDV	8260	08/25	09/09	KWM
1,2,3-Trichloropropane	0.200	U	mg/Kg		8260		09/09	KWM
	18.1	D	mg/Kg		8260	08/25	09/09	KWM
1,3,5-Trimethylbenzene	.ata	D	mg/Kg		8260	- · ·	09/09	KWM
Vinvl Chloride	0.200	U	mg/Kg		8260		09/09	KWM
n+m-Xvlene ∷	47.9	D .	mg/Kg		8260		09/09	KWM
o-Xylene	21.1	D	mg/Kg	EPA	0200	00, 20	,	
				FPA	8270			
Semivolatile Organics	0.210	11	ma /Va		8270	09/04	09/28	MTT
Phenol	0.210	Ü	ng/Kg		8270		09/28	
bis(2-Chloroethyl)ether	0.210	U	mg/Kg		8270	09/04	09/28	
2-Chlorophenol	0.210	U	mg/Kg	ביים	8270		09/28	MTT
1,3-Dichlorobenzene	0.210	U	mg/Kg	EDA	8270	09/04	1 09/28	MTT
1,4-Dichlorobenzene	0.210	U	mg/Kg	EDV	8270		1 09/28	MTT
Benzyl Alcohol	1.00	U	mg/Kg		8270		1 09/28	MTT
1,2-Dichlorobenzene	0.210	U	mg/Kg	507	8270		1 09/28	. MTT
2-Methylphenol	0.210	U	mg/Kg	EC /	8270		4 09/28	MTT
bis(2-Chloroisopropyl)e	0.210	U	mg/Kg	EC.	8270		4 09/28	MTT
4-Methylphenol	0.210	U	mg/Kg	EC?	8270		4 09/28	MTT
n-Nitroso-di-n-Propylam	0.210	U	mg/Kg		8270		4 09/28	MTT
Hexachloroethane	0.210	U	mg/Kg				4 09/28	MTT
Nitrobenzene	0.210		mg/Kg	E.P.	A 8270 A 8270		4 09/28	MTT
Isophorone	0.210	U	mg/Kg	EP/	0270		4 09/28	MTT
2-Nitrophenol	0.210	U	mg/Kg		A 8270		4 09/28	MTT
2,4-Dimethylphenol	0.210	U	mg/Kg	EP/	A 8270		4 09/28	MTT
Benzoic Acid	0.210	U	mg/Kg		A 8270		4 09/28	MTT
bis(2-Chloroethoxy)Meth	0.210	U	mg/Kg		A 8270		4 09/28	MTT
2,4-Dichlorophenol	0.210	U	mg/Kg	EP	A 8270		4 09/28	MTT
1,2,4-Trichlorobenzene	0.210	U	mg/Kg	EP	A 8270		4 09/28	MTT
Naphthalene	0.274		mg/Kg	EP	A 8270		4 09/28	MTT
4-Chloroaniline	0.210	U	mg/Kg	EP	A 8270		4 09/28	MTT
Hexachlorobutadiene	0.210	Ü	mg/Kg		A 8270		4 09/28	MTT
4-Chloro-3-Methylphenol	0.210	U	mg/Kg		A 8270		4 09/28	MTT
	1.42		mg/Kg	EP.	A 8270			MTT
Hexachlorocyclopentadie	0.210	U	mg/Kg		A 8270		4 09/28	MTT
2,4,6-Trichlorophenol	0.210	U	mg/Kg		A 8270	09/0	4 09/28	MTT
2,4,5-Trichlorophenol	0.210	Ü	mg/Kg	EP	A 8270		4 09/28	
2-Chloronaphthalene	0.210	Ū	mg/Kg	EP	A 8270	09/0	4 09/28	MTT
Z-CITOTOHAPHCHATCHC	- 7							
	1					<u> </u>		



ENVIRONMENTAL LABORATORY SERVICES

02 4301 11	R	EPO	RT of ANA	ALYSIS	5633 B STRE ANCHORAGE, AK 99	
memlab Ref.# :93.4301-11 memlab Ref.# :93.4301-11 :BTR-AOC15-S :SOIL <90.1	502 i J				TEL (907) 562-2	343
1101 July COTT COL	Grant 2 and				FAX: (907) 561-5	301
TACLIA	W W				09/04 09/28	MTT
a witroaniline	0.210	U	mag/Kg	EPA 8270	09/04 09/28	MTT
2-Dimethylphinarace	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
ar Acenaphtnylene	0.210	U	mg/Kg	EPA 8270		MTT
2,6-Dinitrotoluene	0.210	U	<b>mg∕K</b> g	EPA 8270	09/04 09/28 09/04 09/28	MTT
3-Nitroaniline	0.210	U	mg/Kg	EPA 8270		MTT
Acenaphthene	0.210	U	<b>mg</b> /Kg	EPA 8270	09/04 09/28	MTT
2,4-Dinitrophenol	0.210	U	<b>mg</b> ∕Kg	EPA 8270	09/04 09/28	MTT
4-Nitrophenol	0.210	U	<b>mg∕K</b> g	EPA 8270	09/04 09/28	MTT
Dibenzofuran	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
2,4-Dinitrotoluene	0.210	U	<b>mg∕</b> Kg	EPA 8270	09/04 09/28	
Diethylphthalate	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
4-Chlorophenyl-Phenylet	0.210	U	<b>mg</b> /Kg	EPA 8270	09/04 09/28	HTT
Fluorene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
4-Nitroaniline	0.210	U	<b>mg</b> ∕Kg	EPA 8270	09/04 09/28	MTT
4,6-Dinitro-2-Methylphe	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
n-Nitrosodiphenylamine	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
4-Bromophenyl-Phenyleth	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Hexachlorobenzene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Pentachlorophenol	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Phenanthrene	0.210	บ	<b>mg∕</b> Kg	EPA 8270	09/04 09/28	
Anthracene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
di-n-Butylphthalate	1.00	U	mg/Kg	EPA 8270	09/04 09/28	MTT MTT
Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
yrene	0.210	U	<b>mg</b> /Kg	EPA 8270	09/04 09/28 09/04 09/28	MTT
Butylbenzylphthalate	0.210	U	<b>mg∕K</b> g	EPA 8270		MTT
3,3-Dichlorobenzidine	0.210	U	<b>mg∕K</b> g	EPA 8270	09/04 09/28	MTT
Benzo(a)Anthracene	0.210	U	mg/Kg	EPA 8270	09/04 09/28 09/04 09/28	MTT
Chrysene	0.210	U	<b>mg∕K</b> g	EPA 8270	09/04 09/28	MTT
bis(2-Ethylhexyl)Phthal	1.00	U	mg/Kg	EPA 8270	09/04 09/28 -	MTT
di-n-Octylphthalate	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Benzo(b)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Benzo(k)Fluoranthene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Benzo(a)Pyrene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Indeno(1.2.3-cd)Pyrene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Dibenz(a,h)Anthracene	0.210	U	mg/Kg	EPA 8270	09/04 09/28	MTT
Benzo(g,h,i)Perylene	0.210	U	mg/Kg	EPA 8270	09/04 09/26	UIII
TOC, Soil	2200		mg/Kg	PSEP Ref Lab		

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than GT = Greater Than



IOT ID	SS21	SS21	SS2/ BTR-A9C15-S03	SS21 BTR- <del>A0215</del> -2804	SS21 BTR- <del>A9615</del> -2805
ICF ID	BTR- <del>A0C15</del> -S01	BTR- <del>A0C15</del> -S02		1692	1694
F&BI Number	364	366	369		
Sample Type	soil	soil	soil	soil	soil
Date Received	8/23/93	8/23/93	8/23/93	9/2/93	9/2/93
% Dry Weight	89	88	52	54	68
Sequence Date	#6-08/23/93	#6-08/23/93	#6-08/23/93	#5-09/05/93	#5-09/05/93
Leaded Gas					
JP-4		7300 includes diesel material	< 50	< 100	< 100
Lube Oil	< 110	< 100	< 100	< 200	< 200
Diesel	<50.丁	10005	1300 J	< 100 丁	<100 J
Spike Level					
Unknown Semi-volatile					
Pentacosane	100	100	96	53	61
Sequence Date					
PCB 1221					
PCB 1232					
PCB 1016					
PCB 1242					
PCB 1248					
PCB 1254					
PCB 1260					
Spike Level					
Dibutyl Chlorendate					
Sequence Date	#6-08/23/93				
alpha-BHC	< 0.01 \( \mathcal{I} \)				
beta-BHC	< 0.01 J				
gamma-BHC	< 0.01				
delta-BHC	< 0.01				
Heptachlor	< 0.01				
Aldrin	< 0.01				
Heptachlor Epoxide	< 0.01				
Endosulfan l	< 0.01				
DDE	< 0.01				
Dieldrin	< 0.01				
Endrin	< 0.01				
Endosulfan II	< 0.01				
DDD	< 0.01				
	< 0.01				
Endrin Aldehyde					
DDT Endosulfan Sulfate	< 0.01				
	< 0.01				
Endrin Ketone	<0.01 ↓	-			
Methoxy Chlor	<8.1°40.51				
Chlordane	<0.5 T				
Dibutyl Chlorendate	83				
Spike Level	#4.0.0.00!0.4!00	#4 8 0 00 to 4 to 0	#4.0.0.0010.4100	#20 4 00 IOC IOC	#20 A 00100102
Vol Sequence	#1&2-08/24/93	#1&2-08/24/93	#1&2-08/24/93	#3&4-09/06/93 < 0.2	#3&4-09/06/93 < 0.1
CCI4	< 0.02 K	< 0.02	< 0.04		
TCA	< 0.02	< 0.02	< 0.04	< 0.2	< 0.1
Benzene	< 0.02	3.9 J N	< 0.04	< 0.04	< 0.03
TCE	< 0.02	< 0.02	< 0.04	< 0.2	< 0.1
Toluene	< 0.02	< <del>0.02</del> 7.3JN	4	< 0.04	< 0.03
PCE	< 0.02	7.340.02	< 0.04	< 0.2	< 0.1
Ethylbenzene	< 0.02	10 JN	10 T	< 0.04	< 0.03
Xylenes	<0.04√ '	27 JN	24 J	<0.08	< < 0.06
Gasoline	<2 R	300 T	1 <del>00 -</del> 2805	42-24J	XX2J
Spike level					· 
BFB ·	90	103	103	85	101

11.11.04 p

ANALYTICAL DATA SHEETS FOR BACKGROUND (BKGD)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4203-5 Client Sample ID :BTR BKGD S01

Matrix :SOIL

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

Project#

**PWSID** 

:RAY MORRIS :DEW LINE

:BARTER :UA

RUSH Order

:69800 Report Completed

Collected

:08/30/93

:08/17/93 @ 12:00 hrs :08/19/93 @ 18:45 hrs

Received Technical Director: STEPHEN/C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. EPH PATERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL, SAMPLE IS MOSS AND THE PATTERN MAY BE DUE

TO BIOGENIC HYDROCARBONS. FINAL RESULTS.

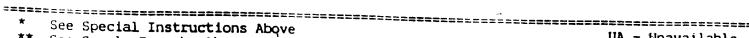
Parameter	Results	Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Percent Solids Hydrocarbons EPH	44.9 588	D	ng/Kg	SM17 2540G 3510/3550/8100M		08/21	08/21 08/23	MY JBH
VPH & BTEX Hydrocarbons VPH	1.40	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/21	08/24	WLS
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.065 0.065 0.065 0.065 0.065	บ บ บ บ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/21 08/21 08/21	08/22 08/22 08/22 08/22 08/22	JLB JLB JLB JLB JLB
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethylene 1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Tromoethane Tromoethane Inyl Chloride	0.065 0.065 0.065 0.065 0.065 0.065 0.065 0.065 0.065 0.065 0.065 0.065 0.065	υ	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22 08/22	



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES



5-Per € 191M		DC	V000 + C ++++		
Chemlab Ref.# :93.4203-5 Client Sample ID :BTR BKGD S01 Matrix :SOIL		KEF	ORT of AN	ALYSIS	5633 B STREET ANCHORAGE, AK 99518 TEL. (907) 562-2343 FAX (907) 561-5301
Chloroethane 1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene  Organochlorine Pest Aldrin Alpha-BHC Beta-BHC Delta-BHC Gamma-BHC Chlordane 4,4'-DDD 4,4'-DDE 4,4'-DDT Dieldrin Endosulfan II Endosulfan Sulfate Endrin Endrin Aldehyde Heptachlor Heptachlor Toxaphene PCB-1016 PCB-1221 PCB-1232	0.065 0.065 0.065 0.065 0.066 0.006 0.006 0.006 0.006 0.006 0.006 0.006 0.006 0.006 0.006 0.006 0.006 0.006 0.006 0.006	U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080	08/21 08/22 JL 08/21 08/22 JL 08/21 08/22 JL 08/21 08/22 JL 08/21 08/22 JL 08/21 08/22 JL 08/21 08/22 JL 08/21 08/25 JL 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC
PCB-1242 PCB-1248 PCB-1254	0.060 0.060 0.060 0.060	U U U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080	08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC 08/21 08/25 NRC



See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5833 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

emlab Ref.

:93.4203-6

Client Sample ID :BTR BKGD S02 Matrix

:SOIL

Client Name Ordered By

Project Name : DEW LINE Project# PWSID

:ICF KAISER ENGINEERING

: RAY MORRIS

BARTER :UA

:69800 RUSH Order Report Completed :08/30/93

Collected Received

:08/17/93 @ 11:35 hrs :08/19/93 @ 18:45 hrs

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. EPH PATTERN IS NOT CONSISTENT WITH HIDDLE DISTILLATE FUEL, SAMPLE IS MOSS AND THE PATTERN MAY BE DUE

TO BIOGENIC HYDROCARBONS. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
 Percent Solids Hydrocarbons EPH VALIDATION	57.1 384	D2(	k)mg/Kg	SM17 2540G 3510/3550/8100M	•	08/21	08/21 08/23	JBI-
VPH & BTEX Hydrocarbons VPH  Comments	0.800	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		·	08/24	WL
Benzene Toluene	0.050 0.050 0.050	U U U	mg/Kg mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020		08/21 08/21	08/22 08/22 08/22	JLI JLI JLI
Ethylbenzene p&m Xylene o-Xylene	0.050 0.050	Ŭ U	mg/Kg mg/Kg	EPA 8020 EPA 8020			08/22	JLI
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene	0.050 0.050	บ บ	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/21	08/22	JLI JLI
1,1 Dichloroethane Chloroform Carbontetrachloride	0.050 0.050 0.050	บ บ	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/22 08/22 08/22 08/22	JI JI
1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane	0.050 0.050 0.050	น บ	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/21 08/21	08/22 08/22 08/22 08/22	JL JL
Dibromochloromethane Tetrachloroethylene Chlorobenzene	0.050 0.050 0.050	บ บ	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2: 08/2:	1 08/22 1 08/22 1 08/22	JL JL
Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethane	0.050 0.050 0.050	U U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2: 08/2:	1 08/22 1 08/22 1 08/22	JL JL
1,1,1 Trichoroethane Bromodichloromethane Trans1.3Dichloropropene	0.050 0.050 0.050	U U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2 08/2	1 08/22 1 08/22 1 08/22	JL JL
cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane	0.050 0.050 0.050	บ บ (	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2 08/2	1 08/22 1 08/22 1 08/22	JL JI
Chloromethane Bromoethane Vinyl Chloride	0.050 0.050 0.050	<b>U</b>	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2	1 08/22 1 08/22	JL

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The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5833 B STREET ANCHORAGE, AK 99518 Chemlab Ref. # :93.4203-6 TEL: (907) 562-2343 Client Sample ID :BTR BKGD S02 FAX: (907) 581-5301 :SOIL Matrix EPA 8010 08/21 08/22 JL 0.050 U mg/Kg Chloroethane 08/21 08/22 EPA 8010 JL mg/Kg 0.050 1.4 Dichlorobenzene 08/21 08/22 JL **EPA** 8010 0.050 mg/Kg 2-Chloroethylvinylether 08/21 08/22 JL **EPA** 8010 0.050 U mg/Kg 1,3-Dichlorobenzene 08/21 08/22 JL. EPA 8010 0.050 U 1,2-Dichlorobenzene mg/Kg (validation qualifiers of comments of mg/Kg EPA 8080 Organochlorine Pest NR 08/21 08/24 **EPA** 8080 0.005 Aldrin NR 08/21 08/24 EPA 8080 0.005 n 1 k mg/Kg Alpha-BHC 08/21 08/24 NR EPA 8080 0.005 UT mg/Kg Beta-BHC 08/21 08/24 NR **EPA** 8080 mg/Kg 0.005 UT Delta-BHC 08/21 08/24 NR **EPA** 8080 0.005 NZU mg/Kg Gamma-BHC 08/21 08/24 NR UX ng/Kg **EPA** 8080 0.005 Chlordane NR 08/21 08/24 EPA 8080 UX 0.050 mg/Kg 4.4'-DDD NR 08/21 08/24 EPA 8080 4,4'-DDE 0.050 LA mg/Kg 08/21 08/24 NR **EPA 8080** mg/Kg 0.050 UX 4,4'-DOT 08/21 08/24 NR' EPA 8080 0.050 UX mg/Kg Dieldrin 08/21 08/24 NR **EPA** 8080 mg/Kg 0.050 mg/kg mg/kg Endosulfan I 08/21 08/24 NR **EPA** 8080 0.050 UT/ Endosulfan II 194 EPA 8080 08/21 08/24 NR UX UX 0.020 Endosulfan Sulfate 08/21 08/24 **EPA** 8080 0.005 mg/Kg \ \ Endrin 08/21 08/24 **EPA** 8080 0.005 UX mg/Kg Endrin Aldehyde 08/21 08/24 TOO! **EPA** 8080 UT 0.005 mg/Kg Heptachlor 08/21 08/24 NR **EPA** 8080 0.005 UI mq/Kq Heptachlor Epoxide 08/21 08/24 NR **EPA** 8080 0.005 UX mg/Kg Methoxychlor 08/21 08/24 NR' **EPA** 8080 0.050 UX mg/Kg Toxaphene 08/21 08/24 NR EPA 8080 0.050 U3 mg/Kg PCB-1016 08/21 08/24 NR **EPA** 8080 0.050 U3 mg/Kg PCB-1221 08/21 08/24 NR **EPA** 8080 0.050 ប្រភ mg/Kg PCB-1232 08/21 08/24 NR

MSGS

0.050

0.050

0.050

0.050

U 7

mg/Kg

U≉**√** mg/Kg

U/K mg/Kg

U Kabag/Kg

PCB-1242

PCB-1248

PCB-1254

PCB-1260

UA = Unavailable

NA = Not Analyzed

08/21 08/24

08/21 08/24

08/21 08/24

NR

NR'

NR

LT = Less Than GT = Greater Than

LA CANADA DE CANADA CANADA DE SUNVEINENCE

EPA 8080

EPA 8080

EPA 8080

EPA 8080

^{*} See Special Instructions Above

^{**} See Sample Remarks Above

U = Undetected Reported value is the practical quantification limit.

U = Underydelinion



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-2 Client Sample ID :BTR BKGD S02

Matrix :SOIL

5633 B STREE ANCHORAGE, AK 9951 TEL: (907) 562-234. FAX: (907) 561-530

Client Name

Ordered By Project Name

:RAY MORRIS :DEW LINE

Project# PWSID :UA

:ICF KAISER ENGINEERING

:BARTER

WORK Order

:69705 Report Completed :09/20/93

Collected Received

:08/17/93 0 11:25 h: :08/19/93 @ 10:50 h:

sur!

Technical Director: STEPHEN C. EDE

Released By :/

Sample Remarks: SAMPLE COLLECTED BY: PETE, JERRY M., AND M. LEMMON.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
	Volatile Organics				EPA 8260				
	Benzene	0.050	ប	mg/Kg	EPA 8260		08/20	08/28	177
	Bromobenzene	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KV KV
	Bromochloromethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	K¥
	Bromodichloromethane	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KF
	Bromoform	0.050	U	mg/Kg	EPA 8260			08/28	KV.
	Bromomethane	0.050	U	mg/Kg	EPA 8260			08/28	KW
	n-Butylbenzene	0.050	U	mg/Kg	EPA 8260			08/28	KW
_	sec-Butylbenzene	0.050	U	mg/Kg	EPA 8260			08/28	KW
	tert-Butylbenzne	0.050	U	mg/Kg	EPA 8260		08/20	08/28	KW
	Carbon Tetrachloride	0.050	U	mg/Kg	EPA 8260			08/28	KW
	Chlorobenzene	0.050	U	mg/Kg	EPA 8260			08/28	KW
	Chloroethane	0.050	U	mg/Kg	EPA 8260			08/28	KW
	Chloroform	0.050	U	mg/Kg	EPA 8260			08/28	KW
	Chloromethane	0.050	U	mg/Kg	EPA 8260			08/28	KM
	2-Chlorotoluene	0.050	U	mg/Kg	EPA 8260			08/28	KW
	4-Chlorotoluene	0.050	U	mg/Kg	EPA 8260			08/28	KW
	Dibromochloromethane	0.050	U	mg/Kg	EPA 8260			08/28	KW
	12Dibromo3Chloropropane	0.050	U	mg/Kg	EPA 8260			08/28	KW
	1,2-Dibromoethane	0.050	U	mg/Kg	EPA 8260		08/20		KW
	Dibromomethane	0.050	U	mg/Kg	EPA 8260		08/20		KW
	1,2-Dichlorobenzene	0.050	U	mg/Kg	EPA 8260		08/20		KW
	1,3-Dichlorobenzene	0.050	U	mg/Kg	EPA 8260		08/20		KW
	1,4-Dichlorobenzene	0.050	ប	mg/Kg	EPA 8260		08/20		KW
	Dichlorodifluoromethane	0.050	U	mg/Kg	EPA 8260		08/20		KM.
	1,1-Dichloroethane	0.050	U	mg/Kg	EPA 8260		08/20		KW
	1,2-Dichloroethane	0.050	U	mg/Kg	EPA 8260		08/20		KW
	1,1-Dichloroethene	0.050	U	mg/Kg	EPA 8260		08/20		KW:
	cis-1,2-Dichloroethene	0.050	U	mg/Kg	EPA 8260		08/20		KWI
	trans1,2-Dichloroethene	0.050	U	mg/Kg	EPA 8260	•	08/20		KW
	1,2-Dichloropropane	0.050	ប	mg/Kg	EPA 8260		08/20		KWI
	1,3-Dichloropropane	0.050	U	mg/Kg	EPA 8260		08/20		KWI
	2,2-Dichloropropane	0.050	U	mg/Kg	EPA 8260		08/20		KWI
	1,1-Dichloropropene	0.050	U	mg/Kg	EPA 8260		08/20		KWI
	Ethylbenzene	0 <b>.0</b> 50	U	mg/Kg	EPA 8260		08/20		KWI
	Hexachlorobutadiene	0.050	U	mg/Kg	EPA 8260		08/20		KWI
_	Isopropylbenzene	0.050	บ	mg/Kg	EPA 8260		08/20		KMI
	p-Isopropyltoluene	0.050	U	mg/Kg	EPA 8260		08/20		KWI
		1				•	00,20	55/ 20	I/MI



ENVIRONMENTAL LABORATORY SERVICES



5-9-25 9C4		דום	PORT of AN	INI VOTO	
Chemlab Ref.# :93.4175-2		rce.	ORI OI AN	AWTI212	5633 B STREE
Client Sample ID :BTR BKGD S02					ANCHORAGE, AK 995
Matrix :SOIL					TEL: (907) 562-23 FAX: (907) 561-53
					, AA. (307) 301330
Methylene Chloride	0.050	ប	///	FD1 0260	
Napthalene	0.050		mg/Kg	EPA 8260	08/20 08/28 F
n-Propylbenzene			mg/Kg	EPA 8260	08/20 08/28 F
Styrene	0.050	Ü	mg/Kg	EPA 8260	08/20 08/28 F
1112-Tetrachloroethane	0.050	U	mg/Kg	EPA 8260	<b>08/20 08/28</b> K
1122-Tetrachloroethane	0.050	U	mg/Kg	EPA 8260	08/20 08/28 K
Tetrachloroethene	0.050	U	mg/Kg	EPA 8260	08/20 08/28 K
Toluene	0.050	U	mg/Kg	EPA 8260	08/20 08/28 K
	0.050	U	<b>mg∕K</b> g	EPA 8260	08/20 08/28 K
1,2,3-Trichlorobenzene	0.050	U	m <b>g/K</b> g	EPA 8260	08/20 08/28 K
1,2,4-Trichlorobenzene	0.050	U	<b>mg∕K</b> g	EPA 8260	08/20 08/28 K
1,1,1-Trichloroethane	0.050	U	<b>mg∕K</b> g	EPA 8260	08/20 08/28 K
1,1,2-Trichloroethane	0.050	U	<b>mg∕K</b> g	EPA 8260	08/20 08/28 K
Trichloroethene	0.050	U	<b>mg/K</b> g	EPA 8260	08/20 08/28 K
Trichlorofluoromethane	0.050	U	mg/Kg	EPA 8260	08/20 08/28 K
1,2,3-Trichloropropane	0.050	U	mg/Kg	EPA 8260	08/20 08/28 K
1,2,4-Trimethylbenzene	0.050	U	mg/Kg	EPA 8260	08/20 08/28 K
1,3,5-Trimethylbenzene	0.050	U	mg/Kg	EPA 8260	
Vinyl Chloride	0.050	U	mg/Kg	EPA 8260	
p+m-Xylene	0.050	U	mg/Kg	EPA 8260	
o-Xylene	0.050	Ū	mg/Kg	EPA 8260	
		_	3/ •/3	MA 0200	08/20 08/28 Ki
Semivolatile Organics				EPA 8270	
Phenol	3.50	U	m <b>g</b> /Kg	EPA 8270	08/30 09/17
bis(2-Chloroethyl)ether	3.50	Ü	mg/Kg	EPA 8270	00.400.00.40
2-Chlorophenol	3.50	Ū	ing/Kg	EPA 8270	
1,3-Dichlorobenzene	3.50	Ü	mg/Kg	EPA 8270	
1,4-Dichlorobenzene	3.50	Ū	mg/Kg	EPA 8270	
Benzyl Alcohol	3.50	Ü	mg/Kg	EPA 8270	
1,2-Dichlorobenzene	3.50	Ŭ	mg/Kg	EPA 8270	
2-Methylphenol	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 (
bis(2-Chloroisopropyl)e	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 (
4-Methylphenol	3.50	Ŭ	mg/Kg	EPA 8270	08/30 09/17 (
n-Nitroso-di-n-Propylam	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
Hexachloroethane	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 (
Nitrobenzene	3.50	Ŭ	mg/Kg	EPA 8270	08/30 09/17 C
Isophorone	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
2-Nitrophenol	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
2,4-Dimethylphenol	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
Benzoic Acid	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
bis(2-Chloroethoxy)Meth	3.50	ŭ	mg/Kg		08/30 09/17 G
2,4-Dichlorophenol	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
1,2,4-Trichlorobenzene	3.50	Ü		EPA 8270	08/30 09/17 G
Naphthalene	3.50	Ü	mg/Kg	EPA 8270	. 08/30 09/17 G
4-Chloroaniline	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
Hexachlorobutadiene	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
4-Chloro-3-Methylphenol	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
2-Methylnaphthalene	3.50	Ü	mg/Kg	EPA 8270	08/30 09/17 G
Hexachlorocyclopentadie	3.50		mg/Kg	EPA 8270	08/30 09/17 G
2,4,6-Trichlorophenol	3.50	U U	mg/Kg	EPA 8270	08/30 09/17 G
2 4 5-Trichlorophenol	3.50	U	mg/Kg	EPA 8270	08/30 09/17 G

2,4,5-Trichlorophenol

2-Chloronaphthalene

3.50 U

3.50 U

EPA 8270

EPA 8270

08/30 09/17

08/30 09/17

G'

mg/Kg

mg/Kg

# E

## COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

4 NUE - 918					····			
Chemlab Ref.# :93.4175-2		REPO	RT of A	NALYSIS			5633 B S	TREET
Client Sample ID :BTR BKGD S02						ANCH	HORAGE, AN	99518
Matrix :SOIL							TEL: (907) 56 FAX: (907) 56	
							(551) 50	71-3001
2-Nitroaniline	3.50	U	mg/Kg	EPA 8270		08/30	09/17	_
Dimethylphthalate	3.50	Ü	ng/Kg	EPA 8270			09/17	G
Acenaphthylene	3.50	Ü	mg/Kg	EPA 8270			09/17	G
2,6-Dinitrotoluene	3.50	บั	mg/Kg	EPA 8270			09/17	G G
3-Nitroaniline	3.50	Ü	mg/Kg	EPA 8270			09/17	
Acenaphthene	3.50	Ū	mg/Kg	EPA 8270			09/17	G.
2,4-Dinitrophenol	3.50	Ü	mg/Kg	EPA 8270			09/17	G.
4-Nitrophenol	3.50	Ū	mg/Kg	EPA 8270			09/17	G.
Dibenzofuran	3.50	Ū	mg/Kg	EPA 8270			09/17	G.
2,4-Dinitrotoluene	3.50	Ü	mg/Kg	EPA 8270		08/30	09/17	G.
Diethylphthalate	3.50	Ü	mg/Kg	EPA 8270			09/17	~
4-Chlorophenyl-Phenylet	3.50	Ü	mg/Kg	EPA 8270			09/17	G
Fluorene	3.50	Ū	mg/Kg	EPA 8270			09/17	G
4-Nitroaniline	3.50	บั	ng/Kg	EPA 8270			09/17	G
4,6-Dinitro-2-Methylphe	3.50	Ū	mg/Kg	EPA 8270			09/17	G,
n-Nitrosodiphenylamine	3.50	Ū	mg/Kg	EPA 8270		08/30	09/17	G.
4-Bromophenyl-Phenyleth	3.50	U	mg/Kg	EPA 8270			09/17	G/
Hexachlorobenzene	3.50	ប	mg/Kg	EPA 8270			09/17	G/
Pentachlorophenol	3.50	U	mg/Kg	EPA 8270			09/17	G/
Phenanthrene	3.50	บ	mg/Kg	EPA 8270			09/17	G/
Anthracene	3.50	U	mg/Kg	EPA 8270		08/30	09/17	G1
di-n-Butylphthalate	3.50	ប	mg/Kg	EPA 8270		08/30	09/17	G1
Fluoranthene	3.50	U	mg/Kg	EPA 8270		08/30	09/17	G,
Pyrene	3.50	U	mg/Kg	EPA 8270			09/17	G1
Butylbenzylphthalate	3.50	U	mg/Kg	EPA 8270			09/17	G,
3,3-Dichlorobenzidine	3.50	U	mg/Kg	EPA 8270			09/17	G,
Benzo(a)Anthracene	3.50	ប	mg/Kg	EPA 8270			09/17	G7
Chrysene	3.50	ប	mg/Kg	EPA 8270			09/17	G!
bis(2-Ethylhexyl)Phthal	3.50	ប	mg/Kg	EPA 8270			09/17	G7
di-n-Octylphthalate	3.50	ប	mg/Kg	EPA 8270			09/17	GV
Benzo(b)Fluoranthene	3.50	U	mg/Kg	EPA 8270			09/17	G1
Benzo(k)Fluoranthene	3.50	U	mg/Kg	EPA 8270			09/17	G7
Benzo(a)Pyrene	3.50	U	mg/Kg	EPA 8270			09/17	G۷
Indeno(1,2,3-cd)Pyrene	3.50	U	mg/Kg	EPA 8270			09/17	G/
Dibenz(a,h)Anthracene	3.50	บ	mg/Kg	EPA 8270			09/17	Ğ۷
Benzo(g,h,i)Perylene	3.50	U	mg/Kg	EPA 8270		08/30	09/17	GV
Comple Decomposition								
Sample Preparation				EPA 3050 Dig	jest			
Total Metals Analysis			al idation					
ICP Screen, ICF	0700		omments		n/a			
Aluminum	8700		mg/Kg	EPA 6010			08/25	DFL
Antimony	91	Ü	mg/Kg	EPA 6010			08/25	DFL
Arsenic	9.1	$a_{Z}^{Z}$	mg/Kg	EPA 6010		08/24		DEL
Barium	120		mg/Kg	EPA 6010		08/24		DFI
Beryllium	4.6	Ü	mg/Kg	EPA 6010		08/24		DFL
Cadmium	4.6	U	mg/Kg	EPA 6010		08/24		DFL
Calcium	5100	1 K	<b>mg</b> /Kg	EPA 6010		08/24		DFL
Chromium Cobalt	14		mg/Kg	EPA 6010		08/24		DFL
Copper	9.1	U	mg/Kg	EPA 6010		08/24		DFI
Iron	14	-	mg/Kg	EPA 6010		08/24		DFL
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11000	₹.K	<b>.mg</b> /Kg	EPA 6010		08/24	08/25	DFT
•			1	1	119/94	`		
			KNI C	luys. s.c	(Intak			
				9 /3	, -			

**@SGS** 



Lead

Magnesium

Manganese

Potassium

Selenium

Thallium

Vanadium

Nickel

Silver

Sodium

Zinc

Molybdenum

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4175-2 Client Sample ID :BTR BKGD S02

Matrix :SOIL

varidation analytiers comments 9.1 v mg/Kg **EPA 6010** TK mg/Kg 2500 **EPA** 6010 XX mg/Kg 76 **EPA** 6010 mg/Kg 4.6 **EPA** 6010 14 **EPA** 6010 970 **EPA** 6010 mg/Kg 9.1 U mg/Kg **EPA** 6010

4.6 U mg/Kg **EPA** 6010 **₹**mg/Kg 230 **EPA** 6010 U

0.45 **EPA** 7841 mg/Kg 22 **EPA** 6010 mg/Kg 24 **EPA 6010** mg/Kg

199000 TOC, Soil

PSEP Ref Lab

pp charges. 1/19/94

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

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D = Secondary dilution.

UA = Unavailabl

NA = Not Analyzed

5633 B STREE

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D

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ANCHORAGE, AK 995 TEL: (907) 562-23-

08/24 08/25

08/24 08/25

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08/24 08/25

08/24 08/25

08/24 08/25

08/24 08/25

08/24 08/25

08/24 08/26

08/24 08/25

08/24 08/25

FAX: (907) 561-530

LT = Less Than GT = Greater Than



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Memlab Ref.# :93.4199-4 Client Sample ID :BTR BKGD S03

Matrix :SOIL ANCHORAGE, AK 995 TEL (907) 562-23. FAX (907) 561-53

Client Name Ordered By

PWSID

:ICF KAISER ENGINEERING

Project Name Project#

:RAY MORRIS :DEW LINE :BARTER :UA

RUSH Order

:69775

Report Completed Collected

:08/30/93

Received

:08/17/93 @ 15:10 h :08/19/93 @ 18:45 h

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. long EPH PATTERN NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL. FINAL RESULTS.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
	Percent Solids	25.5		*	SM17 2540G				
	Hydrocarbons EPH	116		mg/Kg	3510/3550/8100M		00.400	00.404	
	UDII c preme				3310/3330/61000		08/20	08/21	DR
	VPH & BTEX	_			EPA 8015M/8020				
	Hydrocarbons VPH	6.00	U	mg/Kg	EPA 5030/8015m		08/20	08/21	KW.
•	Benzene				,		00/20	00/21	IVW:
	Toluene	0.300	-	mg/Kg	EPA 8020		08/20	08/21	KWI
_	Ethylbenzene	0.300	U	mg/Kg	EPA 8020			08/21	KWI
. (	&m Xylene	0.300	U	mg/Kg	EPA 8020			08/21	KWI
	o-Xylene	0.300	U	mg/Kg	EPA 8020		08/20	08/21	KW
	1,720,10	0.300	U	mg/Kg	EPA 8020			08/21	KWI
	Halogenated Volatile Or						•	,	
	Methylene Chloride	0.300	บ	A10	EPA 8010				
	1,1 Dichloroethylene		U	mg/Kg	EPA 8010		08/20	08/21	KWE
	1,1 Dichloroethane	0.300	U	mg/Kg	EPA 8010		08/20		KWP
	Chloroform	0.300	Ü	mg/Kg	EPA 8010		08/20	08/21	KWE
	Carbontetrachloride	0.300	Ü	mg/Kg	EPA 8010		08/20	08/21	KWH
	1, 2 Dichloropropane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KWM
	Trichloroethylene	0.300	Ü	mg/Kg	EPA 8010		08/20	08/21	KWM
	1,1,2 Trichloroethane	0.300	U	mg/Kg	EPA 8010		08/20	08/21	KWH
	Dibromochloromethane	0.300		ng/Kg	EPA 8010		08/20	08/21	KWM
	Tetrachloroethylene	0.300		mg/Kg	EPA 8010		08/20	08/21	KWM
	Chlorobenzene	0.300	_	mg/Kg	EPA 8010		08/20	08/21	KWH
	Trichlorofluoromethane	0.300		mg/Kg	EPA 8010		08/20	08/21	KWM
	Trans12Dichloroethylene	0.300	_	ng/Kg	EPA 8010		08/20	08/21	KWM
	1,2 Dichloroethane	0.300		mg/Kg	EPA 8010		08/20	08/21	KWM
	1,1,1 Trichoroethane	0.300	-	ng/Kg	EPA 8010		08/20	08/21	KWH
	Bromodichloromethane	0.300	_	mg/Kg	EPA 8010		08/20	08/21	KWM
	Transi, 3Dichloropropene	0.300	_	mg/Kg	EPA 8010		08/20	08/21	KWH
	cis-1,3-Dichloropropene	0.300		mg/Kg	EPA 8010		08/20	08/21	KWM
	Browotorm	0.300		mg/Kg	EPA 8010		08/20 (	08/21	KWM
	1122-Tetrachloroethane	0.300		mg/Kg	EPA 8010		08/20 (	08/21	KWM
	Chloromethane	0.300		mg/Kg	EPA 8010		08/20 (		KWM
	Bromoethane			mg/Kg	EPA 8010		08/20 (		KWM
	Vinyl Chloride		-	mg/Kg	EPA 8010		08/20 (		KWM
	loroethane	0.300		mg/Kg	EPA 8010		08/20 (		KWM
4	<b>7</b>	1	٠ I	mg/Kg	EPA 8010	•	Q8/20 C	8/21	KWM



ENVIRONMENTAL LABORATORY SERVICES



, <b></b>	,	PFP0	RT of ANA	LACIC			
Chemlab Ref.# :93.4199-4			WI OF ANA	L1515			1633 B STREE
Client Sample ID :BTR BKGD S03						ANCH	OFIAGE, AK 9951)
						i, r.	EU (907) 562-234.
Matrix :SOIL						,	AX (907) 561-530
1,4 Dichlorobenzene	0.300	U	ng/Kg		0010	00/20	00.404
2-Chloroethylvinylether		Ü			8010	08/20	
1,3-Dichlorobenzene		U	mg/Kg		8010	08/20	
1,2-Dichlorobenzene		•	ng/Kg		8010	08/20	
1,2-b1chtorobenzene	0.300	U	ing∕Kg	EPA	8010	08/20	08/21 KI
Organochlorine Pest				EPA	80 <b>80</b>		
Aldrin	0.005	U	ng/Kg		8080	08/21	08/24 NR
Alpha-BHC	0.005	U	mg/Kg		8080	08/21	
Beta-BHC	0.005	Ü	mg/Kg		8080	08/21	
Delta-BHC	0.005	Ŭ	mg/Kg		8080		
Gamma-BHC	0.005	Ü	mg/Kg		8080	08/21	
Chlordane	0.100	Ü				08/21	
4,4'-DDD		Ü	mg/Kg		8080	08/21	
4, 4'-DDE	0.005	Ü	mg/Kg		8080	08/21	
4,4'-DOT			mg/Kg		8080	08/21	
Dieldrin		Ü	mg/Kg		8080	08/21	•
		Ü	mg/Kg		8080	08/21	
Endosulfan I		U	mg/Kg		8080	08/21	
Endosulfan II		U	mg/Kg		8080	08/21	
Endosulfan Sulfate	0.005	U	mg/Kg		8080	08/21	
Endrin	0.005	U	mg/Kg		8080	08/21	
Endrin Aldehyde	0.005	U	mg/Kg		8080	08/21	
Heptachlor	0.005	U	ng/Kg		8080	08/21	08/24 RC
Heptachlor Epoxide	0.005	U	nng/Kg	EPA	8080	08/21	08/24 NRC
Methoxychlor	0.005	U	mg/Kg	EPA	8080	08/21	08/24 NRC
Toxaphene	0.100	U	mag/Kg	EPA	8080	08/21	08/24 NRC
PCB-1016	0.100	U	nng/Kg	EPA	8080	08/21	08/24 NRC
PCB-1221	0.100	U	mg/Kg	EPA	8080	08/21	08/24 NRC
PCB-1232	0.100	U	mg/Kg		8080	08/21	
PCB-1242	0.100	U	mg/Kg		8080	08/21	
PCB-1248	0.100	U	nng/Kg		8080	08/21	
PCB-1254	0.100	Ü	mg/Kg		8080	08/21	
PCB-1260	0.100	U	mg/Kg		8080	08/21	

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



^{*} See Special Instructions Above

^{**} See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemilab Ref.# :93.4203-4 Client Sample ID :BTR BKGD S04

Matrix

**PWSID** 

:SOIL

**5633 8 STREET** ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX. (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name Project#

:DEW LINE :BARTER :UA

RUSH Order

Report Completed **:08/30/**93

Collected Received

:08/17/93 @ 12:00 hrs :08/19/93 @ 18:45 hrs

Technical Director: STEPHEN C. EDE

:69800

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M. EPH PATTERN IS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL, SAMPLE IS MOSS AND THE PATTERN MAY BE DUE TO BIOGENIC HYDROCARBONS. 8080 RESULTS ARE PRELIMINARY DUE TO LOW

SURROGATE RECOVERY, SAMPLES BEING RE-EXTRACTED.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Percent Solids	41.0		*	SM17 2540G			AQ /21	
	Hydrocarbons EPH	466	D	mg/Kg	3510/3550/8100M		00/21	08/21 08/22	MY
	•			mg/ t/g	2210/2220/01000		00/21	08/22	JBH
	VPH & BTEX				EPA 8015H/8020				
	Hydrocarbons VPH	1.20	U	mg/Kg	EPA 5030/8015m		09/21	08/24	UT C
4				3/ 1/9	MA 3030/0013M		00/21	00/24	WLS
•	enzene	0.150	U	mg/Kg	EPA 8020		08/21	08/24	JLB
	Toluene	0.150	U	mg/Kg	EPA 8020			08/24	JLB
	Ethylbenzene	0.150	U	mg/Kg	EPA 8020			08/24	JLB
	p&m Xylene	0.150	U	mg/Kg	EPA 8020			08/24	JLB
	o-Xylene	0.150	U	mg/Kg	EPA 8020			08/24	JLB
				3, 223	5		00, 21	00,24	OLL
	Halogenated Volatile Or				EPA 8010				
	Methylene Chloride	0.150	U	mg/Kg	EPA 8010		08/21	08/24	ЛÆ
	1,1 Dichloroethylene	0.150	U	mg/Kg	EPA 8010			08/24	JLB
	1,1 Dichloroethane	0.150	U	mg/Kg	EPA 8010			08/24	JLB
	Chloroform	0.150	U	mg/Kg	EPA 8010			08/24	JLB
	Carbontetrachloride	0.150	U	mg/Kg	EPA 8010			08/24	JLB
	1, 2 Dichloropropane	0.150	U	mg/Kg	EPA 8010			08/24	JLB
	Trichloroethylene	0.150	U	mg/Kg	EPA 8010			08/24	JLB
	1,1,2 Trichloroethane	0.150	ប	mg/Kg	EPA 8010			08/24	JLB
	Dibromochloromethane	0.150	U	mg/Kg	EPA 8010			08/24	JLB
	Tetrachloroethylene	0.150	U	mg/Kg	EPA 8010			08/24	JLB
	Chlorobenzene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
	Trichlorofluoromethane	0.150	U	mg/Kg	EPA 8010		08/21		JLB
	Trans12Dichloroethylene	0.150	U	mg/Kg	EPA 8010		08/21		JLB
	1,2 Dichloroethane	0.150	U	mg/Kg	EPA 8010		08/21		JLB
	1,1,1 Trichoroethane	0.150	U	mg/Kg	EPA 8010		08/21		JLB
	Bromodichloromethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
	Transi, 3Dichloropropene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
	cis-1,3-Dichloropropene	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
	Bromoform	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
	1122-Tetrachloroethane	0.150	U	mg/Kg	EPA 8010		08/21		JLB
	nloromethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB
	Fromoethane	0.150	U	mg/Kg	EPA 8010		08/21	08/24	JLB



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4203-4 5633 8 STREET ANCHORAGE, AK 99518 Client Sample ID :BTR BKGD S04 TEL. (907) 562-2343 Matrix :SOIL FAX (907) 561-5301 Vinyl Chloride 0.150 U mg/Kg EPA 8010 08/21 08/24 JL Chloroethane 0.150 U mg/Kg EPA 8010 08/21 08/24 JL. 1,4 Dichlorobenzene 0.150 U mg/Kq **EPA** 8010 08/21 08/24 JL 2-Chloroethylvinylether 0.150 U mg/Kg EPA 8010 08/21 08/24 JL: 1,3-Dichlorobenzene 0.150 U mg/Kg EPA 8010 08/21 08/24 JL 1,2-Dichlorobenzene 0.150 mg/Kg EPA 8010 08/21 08/24 JL Organochlorine Pest EPA 8080 Aldrin 0.006 U mg/Kg EPA 8080 08/21 08/24 NR( Alpha-BHC 0.006 U mg/Kg EPA 8080 08/21 08/24 NR( Beta-BHC 0.006 U mg/Kg EPA 8080 08/21 08/24 NR( Delta-BHC 0.006 U mg/Kq EPA 8080 08/21 08/24 NR( Gamma-BHC 0.006 U mg/Kg **EPA** 8080 08/21 08/24 NRC Chlordane 0.060 U mg/Kg **EPA** 8080 08/21 08/24 NRC 4,4'-DDD 0.006 U mg/Kg EPA 8080 08/21 08/24 NRC 4,4'-DDE 0.006 U mg/Kq EPA 8080 08/21 08/24 NRC 4,4'-DDT 0.004 U mg/Kq **EPA** 8080 08/21 08/24 NRC Dieldrin 0.006 U mg/Kg **EPA** 8080 08/21 08/24 NRC Endosulfan I 0.006 U mg/Kg EPA 8080 08/21 08/24 NRC Endosulfan II 0.006 U mg/Kg EPA 8080 08/21 08/24 NRC Endosulfan Sulfate 0.010 U mg/Kq **EPA** 8080 08/21 08/24 MRC Endrin 0.004 U mg/Kg EPA 8080 08/21 08/24 Endrin Aldehyde 0.006 U mg/Kg **EPA** 8080 08/21 08/24 Heptachlor 0.006 mg/Kg U **EPA** 8080 08/21 08/24 NRC Heptachlor Epoxide 0.006 U mg/Kg **EPA** 8080 08/21 08/24 **NRC** Methoxychlor 0.006 U mg/Kg EPA 8080 08/21 08/24 NRC Toxaphene 0.060 U mg/Kg **EPA** 8080 08/21 08/24 NRC PCB-1016 0.060 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1221 0.060 U mg/Kq EPA 8080 08/21 08/24 NRC PCB-1232 0.060 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1242 0.060 U mg/Kg **EPA** 8080 08/21 08/24 **NRC** PCB-1248 0.060 U mg/Kg **EPA** 8080 08/21 08/24 **NRC** PCB-1254 0.060 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1260 0.060 U

mg/Kg

**EPA** 8080

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

08/21 08/24

NRC

LT = Less Than **GT** = Greater Than



See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99511 TEL: (907) 582-234 FAX: (907) 561-530

:93.4199-1 chemlab Ref. Client Sample ID :BTR BKGD SD01

:SOIL Matrix

:ICF KAISER ENGINEERING

Client Name :RAY MORRIS Ordered By :DEW LINE Project Name :BARTER Project* :UA **PWSID** 

:69775 RUSH Order Report Completed :08/30/93

e 14:30 h :08/17/93 Collected :08/19/93 @ 18:45 h Received

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. EPH PATTERN JS NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL. FINAL RESULTS.

	Parameter Re	esults	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In
	Percent Solids	77.8 9.55	ング	% )mg/Kg	SM17 2540G 3510/3550/8100M		08/20	08/21	ľ
	VPH & BTEX Hydrocarbons VPH  (Comments)	0.400	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m	•	•	08/22	ŀ
•	Benzene Toluene	0.020	U	mg/Kg mg/Kg	EPA 8020 EPA 8020 EPA 8020		08/20	08/22 08/22 08/22	ł ł ł
	Ethylbenzene p&m Xylene o-Xylene	0.020 0.020 0.020	บ บ บ	nng/Kg nng/Kg nng/Kg	EPA 8020 EPA 8020		08/20	08/22	ì
	Halogenated Volatile Or	0.020	บ	mg/Kg	EPA 8010 EPA 8010			08/22	1
	Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane	0.020 0.020 0.020	U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/20 08/20	08/22	I
•	Chloroform Carbontetrachloride 1, 2 Dichloropropane	0.020 0.020	U U	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2	0 08/22 0 08/22 0 08/22	;
•	Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane	0.020 0.020 0.020	U U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010		08/2	0 08/22 0 08/22 0 08/22	
	Tetrachloroethylene Chlorobenzene Trichlorofluoromethane	0.020 0.020 0.020	U	ng/Kg ng/Kg	EPA 8010 EPA 8010 EPA 8010		08/2 08/2	0 08/22 0 08/22 0 08/22	
	Trans12Dichloroethylene 1,2 Dichloroethane 1,1,1 Trichoroethane	0.020 0.020 0.020	<b>U</b>	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2 08/2	0 08/22 0 08/22 0 08/22	2
	Bromodichloromethane Transi.3Dichloropropene	0.020 0.020 0.020	บ () บ	nng/Kg nng/Kg nng/Kg	EPA 8010 EPA 8010 EPA 8010		08/2 08/2	0 08/22 0 08/22	2
1	cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane	0.020 0.020 0.020	0 U	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2 08/2	0 08/22 0 08/22 0 08/22	2 2
د <u>.</u> احد	Chloromethane Bromoethane Vinyl Chloride	0.02 0.02 0.02	0 U	mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/2	20 08/22 20 08/22 20 08/22	2
	Chloroethane	0.02	· ·	ma\ ,,a					



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4199-1 5633 B STREET ANCHORAGE, AK 99518 Client Sample ID :BTR BKGD SD01 TEL (907) 562-2343 Matrix :SOIL FAX (907) 561-5301 1,4 Dichlorobenzene 0.020 Ħ mg/Kg EPA 8010 08/20 08/22 KWF 2-Chloroethylvinylether 0.020 U mg/Kg EPA 8010 08/20 08/22 KWF 1,3-Dichlorobenzene 0.020 U mg/Kg EPA 8010 08/20 08/22 KWY 1,2-Dichlorobenzene 0.020 U mg/Kg EPA 8010 08/20 08/22 KWH Organochlorine Pest EPA 8080 Aldrin 0.001 U mg/Kg EPA 8080 08/21 08/24 **NRC** Alpha-BHC 0.001 U mg/Kg **EPA** 8080 08/21 08/24 NRC Beta-BHC 0.001 U mg/Kg EPA 8080 08/21 08/24 **NRC** Delta-BHC 0.001 U mg/Kg EPA 8080 08/21 08/24 NRC Gamma-BHC 0.001 U mg/Kg EPA 8080 08/21 08/24 NRC Chlordane 0.020 mg/Kg 08/21 08/24 EPA 8080 **NRC** 4,4'-DDD 0.001 U mg/Kq **EPA 8080** 08/21 08/24 NRC 4,4'-DDE 0.001 U mg/Kg EPA 8080 08/21 08/24 **NRC** 4,4'-DDT 0.001 U mg/Kg **EPA 8080** 08/21 08/24 NRC Dieldrin 0.001 U mg/Kg EPA 8080 08/21 08/24 NRC Endosulfan I 0.001 U mg/Kg **EPA** 8080 08/21 08/24 NRC Endosulfan II 0.001 U mg/Kg **EPA** 8080 08/21 08/24 NRC Endosulfan Sulfate 0.001 U mg/Kg **EPA** 8080 08/21 08/24 NRC Endrin 0.001 U mg/Kg **EPA** 8080 08/21 08/24 NRC Endrin Aldehyde 0.001 U EPA 8080 mg/Kg 08/21 08/24 NRC Heptachlor 0.001 U mg/Kg **EPA** 8080 08/21 08/24 Heptachlor Epoxide 0.001 U mg/Kq EPA 8080 08/21 08/24 Methoxychlor 0.001 U mg/Kg EPA 8080 08/21 08/24 NRC Toxaphene 0.020 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1016 0.020 U mg/Kg **EPA 8080** 08/21 08/24 NRC PCB-1221 0.020 U mg/Kg 08/21 08/24 EPA 8080 NRC PCB-1232 0.020 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1242 0.020 U mg/Kg 08/21 08/24 EPA 8080 NRC PCB-1248 0.020 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1254 0.020 U mg/Kq EPA 8080 08/21 08/24 **NRC** PCB-1260 0.020 U mg/Kg

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

08/21 08/24

NRC

NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Societe Genérale de Surveillance)

EPA 8080



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4179-4 Client Sample ID :BTR BKGD SD01

Matrix :SOIL

**5633 B STREET** ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order :69712 Report Completed :09/20/93

:08/17/93 @ 14:30 hr:

Received

Collected

:08/19/93 @ 10:50 hr:

Technical Director: STEPHEN C. EDE Released By : Star

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.025	บ	mg/Kg	EPA 8260		00/20	00./20	
	Bromobenzene	0.025	ប	mg/Kg	EPA 8260		08/20	08/28	KWN
	Bromochloromethane	0.025	Ü	ng/Kg	EPA 8260			08/28 08/28	KWK
	Bromodichloromethane	0.025	Ü	mg/Kg	EPA 8260				KWI:
	Bromoform	0.025	Ū	mg/Kg	EPA 8260			08/28	KWE
	Bromomethane	0.025	Ū	mg/Kg	EPA 8260		08/20 08/20		KWK
	n-Butylbenzene	0.025	Ū	mg/Kg	EPA 8260				KWB
_	sec-Butylbenzene	0.025	Ū	mg/Kg	EPA 8260		08/20		KWM
	tert-Butylbenzne	0.025	Ū	mg/Kg	EPA 8260		08/20 08/20		KWH KWH
	Carbon Tetrachloride	0.025	Ü	ng/Kg	EPA 8260		08/20		
	Chlorobenzene	0.025	Ū	mg/Kg	EPA 8260		08/20	00/20	KWM
	Chloroethane	0.025	Ü	mg/Kg	EPA 8260		08/20		KWM
	Chloroform	0.025	U	mg/Kg	EPA 8260		08/20		KWM KWM
	Chloromethane	0.025	U	mg/Kg	EPA 8260		08/20		
	2-Chlorotoluene	0.025	Ū	mg/Kg	EPA 8260		08/20		KWM
	4-Chlorotoluene	0.025	Ü	mg/Kg	EPA 8260		08/20		KWM KWM
	Dibromochloromethane	0.025	Ü	mg/Kg	EPA 8260		08/20		KWM
	12Dibromo3Chloropropane	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1,2-Dibromoethane	0.025	U	mg/Kg	EPA 8260		08/20		KWH
	Dibromomethane	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1,2-Dichlorobenzene	0.025	Ü	mg/Kg	EPA 8260		08/20		KWM
	1,3-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1,4-Dichlorobenzene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	Dichlorodifluoromethane	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1,1-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1,2-Dichloroethane	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1.1-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	cis-1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	trans1,2-Dichloroethene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1,3-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	2,2-Dichloropropane	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	1,1-Dichloropropene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	Ethylbenzene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	Hexachlorobutadiene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	Isopropylbenzene	0.025	U	mg/Kg	EPA 8260		08/20		KWM
	p-Isopropyltoluene	0.025	ប	mg/Kg	EPA 8260		08/20		KWM
-		•					·	-,	••••••



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES



SACE FUB	REPORT of ANAL	YSIS SEE	5633 B STREET
chemlab Ref.# :93.4179-4			ANCHORAGE, AK 99518
Client Sample ID :BTR BKGD SD0	1 /	//	TEL: (907) 562-2343 FAX: (907) 561-5301
Matrix :SOIL	Matchin	immunits	
	τ.		08/20 08/28 KW
Methylene Chloride	<b>0.025 U mg/</b> Kg	EPA 8260	08/20 08/28 KW: 08/20 08/28 KW:
Napthalene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
n-Propylbenzene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
Styrene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
1112-Tetrachloroethane	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
1122-Tetrachloroethane	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
Tetrachloroethene	0.025 U mg/Kg	EPA 8260 EPA 8260	08/20 08/28 KW
Toluene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
1,2,3-Trichlorobenzene	0.025 U mg/Kg 0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
1,2,4-Trichlorobenzene		EPA 8260	08/20 08/28 KW
1,1,1-Trichloroethane	0.025 U mg/Kg 0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
1,1,2-Trichloroethane	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
Trichloroethene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
Trichlorofluoromethane 1,2,3-Trichloropropane	0.025 U mg/Kg	EPA 8260	08/20 08/28 · KW
1,2,4-Trimethylbenzene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
1,3,5-Trimethylbenzene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
Vinyl Chloride	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
p+m-Xylene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KW
o-Xylene	0.025 U mg/Kg	EPA 8260	08/20 08/28 KK
O Ny Lene			
Semivolatile Organics		EPA 8270	00/20 00/16
Phenol	<b>0.2</b> 30 U <b>mg/</b> Kg	EPA 8270	08/30 09/16 G 08/30 09/16 G
bis(2-Chloroethyl)ether	<b>0.2</b> 30 U mg/Kg	EPA 8270	08/30 09/16 G 08/30 09/16 G
2-Chlorophenol	0.230 U mg/Kg	EPA 8270	08/30 09/16 G 08/30 09/16 G 08/30 09/16 G
1,3-Dichlorobenzene	0.230 U mg/Kg	EPA 8270	08/30 09/16 G
1,4-Dichlorobenzene	0.230 U mg/Kg	EPA 8270 EPA 8270 €.3	08/30 09/16 G
—	1.00 U mg/Kg	EPA 8270	08/30 09/16 G
1,2-Dichlorobenzene	0.230 U mg/Kg	EPA 8270	08/30 09/16 G
2-Methylphenol	0.230 U mg/Kg 0.230 U mg/Kg	EPA 8270	08/30 09/16 €
bis(2-Chloroisopropyl)e	0.230 U mg/Kg	EPA 8270	08/30 <b>09/16</b> G
4-Methylphenol	0.230 U mg/Kg	EPA 8270	08/30 09/16 €
n-Nitroso-di-n-Propylam Hexachloroethane	0.230 U mg/Kg	EPA 8270	08/30 <b>09/16 ©</b>
Nitrobenzene	0.230 U mg/Kg	EPA 8270	08/30 09/16 €
Isophorone	0.230 U mg/Kg	EPA 8270	08/30 09/16 €
2-Nitrophenol	0.230 U mg/Kg	EPA 8270	08/30 09/16
2,4-Dimethylphenol	0.230 U mg/Kg	EPA 8270	08/30 09/16
Benzoic Acid	0.230 U mg/Kg	EPA 8270	08/30 09/16 6
bis(2-Chloroethoxy)Meth	0.230 U mg/Kg	EPA 8270	08/30 09/16
2,4-Dichlorophenol	<b>0.230 U mg/</b> Kg	EPA 8270	08/30 09/16
1,2,4-Trichlorobenzene	<b>0.2</b> 30 U mg/Kg	EPA 8270	08/30 09/16 ( 08/30 09/16 (
Naphthalene	<b>0.230 U mg/</b> Kg	EPA 8270	08/30 09/16 ( 08/30 09/16 (
4-Chloroaniline	0.230 U mg/Kg	EPA 8270	08/30 09/16
Hexachlorobutadiene	0.230 U mg/Kg	EPA 8270	08/30 09/16
4-Chloro-3-Methylphenol	0.230 U mg/Kg	EPA 8270	08/30 09/16
2-Methylnaphthalene	0.230 U mg/Kg	EPA 8270	08/30 09/16(
Hexachlorocyclopentadie	0.230 U mg/Kg	EPA_8270 EPA_8270	08/30 09/16
2,4,6-Trichlorophenol	0.230 U mg/Kg 0.230 U mg/Kg	EPA 8270	< 08/30 09/16 (
2,4,5-Trichlorophenol	0.230 U mg/Kg 0.230 U mg/Kg	EPA 8270	08/30 09/16
2-Chloronaphthalene	0.230 U ling/1/g	1 \	
		(ag)	•
•		1-18.	

#### 120

GV

GV

GV

GV

08/30 09/16

08/30 09/16

08/30 09/16

08/30 09/16

#### Commercial Testing & Engineering Co.

Environmental Laboratory Services 5633 B Street REPORT of ANALYSIS Anchorage, AK 99518-1600 (10/16/11) (10/16) 562-2343 (10/16/11) (10/16) 561-5301 Chemlab Ref.# :93.4179-4 Client Sample ID :BTR BKGD SD01 1 SOIL Matrix **GV** 08/30 09/16 EPA 8270 0.230 U mg/Kg 2-Chloronaphthalene GV 08/30 09/16 EPA 8270 0.230 ma/Ka G۷ 2-Nitroaniline 08/30 09/16 EPA 6270 mg/Kg 0.230 Dimethylphthalate GV 08/30 09/16 EPA 8270 0.230 ma/Ka u G۷ Acenaphthylene 08/30 09/16 EPA 8270 0.230 mg/Kg U 2,6-Dinitrotoluene GV 08/30 09/16 EPA 8270 mg/Kg 0.230 U 3-Nitroaniline GV 08/30 09/16 EPA 8270 mg/Kg 0.230 U GV Acenaphthene 08/30 09/16 **EPA** 8270 0.230 U mg/Kg 2,4-Dinitrophenol 08/30 09/16 GV EPA 8270 0.230 U mg/Kg 08/30 09/16 4-Nitrophenol GV EPA 8270 0.230 mg/Kg ij Dibenzofuran 08/30 09/16 G۷ EPA 8270 0.230 mg/Kg U 08/30 09/16 GV 2.4-Dinitrotoluene EPA 8270 0.230 11 mg/Kg piethylphthalate | 08/30 09/16 GV EPA 8270 0.230 u mg/Kg 4-Chlorophenyl-Phenylet 08/30 09/16 GV EPA 8270 mg/Kg 0.230 GV Fluorene 08/30 09/16 EPA 8270 ng/Kg 0.230 U 08/30 09/16 GV 4-Nitroaniline EPA 8270 mg/Kg 0.230 U 4,6-Dinitro-2-Methylphe GV 08/30 09/16 EPA 8270 mg/Kg 0.230 U n-Nitrosodiphenylamine 08/30 09/16 GV EPA 8270 mg/Kg 0.230 4-Bromophenyl-Phenyleth GV 08/30 09/16 EPA 8270 mg/Kg 0.230 U GV Hexachlorobenzene 08/30 09/16 EPA 8270 mg/Kg 0.230 U Pentachlorophenol GV OB/30 09/16 EPA 8270 mg/Kg 0.230 U Phenanthrene GV 08/30 09/16 EPA 8270 EPA 8270 (W)-E. 2 mg/Kg 0.230 GV 08/30 09/16 Anthracene mg/Kg 0.260 di-n-Butylphthalate GV 08/30 09/16 EPA 8270 U mg/Kg 0.230 Fluoranthene GV 08/30 09/16 EPA 8270 0.230 U mg/Kg 08/30 09/16 GV Pyrene EPA 8270 mg/Kg 0.230 U Butyloenzylphthalate GV 08/30 09/16 EPA 8270 0.230 U mg/Kg 3,3-Dichlorobenzidine GV 08/30 09/16 EPA 8270 mg/Kg 0.230 IJ Benzo(a) Anthracene G۷ 08/30 09/16 EPA 8270 U mg/Kg 0.230 GV 08/30 09/16 Chrysene EPA 8270 U mg/Kg 0.230 bis(2-Ethylhexyl)Phthal 08/30 09/16 GV

mg/Kg 0.230 U Indeno(1,2,3-cd)Pyrene 08/30 09/16 GV EPA 8270 0.230 U mg/Kg Dibenz(a,h)Anthracene 08/30 09/16 EPA 8270 ng/Kg 0.230 Benzo(g,h,i)Perylene EPA 3050 Digest Sample Preparation Total Metals Analysis n/a EPA DFL ICP Screen, ICF 08/24 08/25 EPA 6010 1700 mg/Kg 08/24 08/25 DET. Aluminum EPA 6010 mg/Kg 59 U DFL 08/24 08/25 Antimony EPA 6010 7.0 mg/Kg 08/24 08/25 DEL Arsenic **EPA** 6010 27 mg/Kg 08/24 08/25 DEL Barium EPA 6010 U mg/Kg 3.0 DEL 08/24 08/25 Beryllium EPA 6010 mg/Kg U 3.0 DEL 08/24 08/25 Cadmium EPA 6010 mg/Kg 12000 DFL 08/24 08/25 Calcium EPA 6010 mg/Kg 3.0 08/24 08/25 DFL Chromium EPA 6010 U 59 mg/Kg 08/24 08/25 Cobelt EPA 6010

mg/Kg

W 10.94



0.230

0.230

0.230

0.230

3.0

U

di-n-Octylphthalate

Benzo(b)Fluoranthene

Benzo(k)Fluoranthene

Benzo(a)Pyrene

Copper

U

U

Ü

U

mg/Kg

mg/Kg

mg/Kg

mg/Kg

EPA 8270

EPA 8270

EPA 8270

EPA 8270

EPA 8270



Chemlab Ref.#

TOC, Soil

#### COMMERCIAL TESTING & ENGINEERING CO.

**ENVIRONMENTAL LABORATORY SERVICES** 

32000

:93.4179-4

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

09/08

Matrix	:SOIL							FAX: (907) 56	
INGCLIX	: 501L					qual	com		
Lead		5.9	U	ng/Kg	EPA 6010	V		08/24 08/25	DF
Magnesium		4800		mg/Kg	EPA 6010			08/24 08/25	DF
Manganese		76		mg/Kg	EPA 6010			08/24 08/25	DF
Molybdenum		3.0	U	mg/Kg	EPA 6010			08/24 08/25	DF
Nickel		4.2		mg/Kg	EPA 6010			08/24 08/25	DF
Potassium		300	Ü	mg/Kg	EPA 6010		•	08/24 08/25	DF
Selenium		59	U	mg/Kg	EPA 6010			08/24 08/25	DF
Silver		3.0	U	mg/Kg	EPA 6010			08/24 08/25	DF
Sodium		71		mg/Kg	EPA 6010			08/24 08/29	DF
Thallium		0.3	U	mg/Kg	EPA 7841	UJ	B.1	08/24 08/26	KA
Vanadium		7.7		mg/Kg	EPA 6010			08/24 08/29	DF
Zinc		11		mg/Kg	EPA 6010			08/24 08/29	DF

mg/Kg

PSEP Ref Lab

J. Buyya 1/4/94

See Sample Remarks Above U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than

GT = Greater Than



See Special Instructions Above



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4199-2 Client Sample ID :BTR BKGD SD01 SPIKE Matrix

:SOIL

5633 B STREE ANCHORAGE, AK 995 TEL (907) 562-23: FAX (907) 561 53C

Cllent Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

**PWSID** 

:RAY MORRIS :DEW LINE :BARTER

:UA

RUSH Order

:69775

Report Completed Collected

**:08/**30/93

Received

:08/17/93 @ 14:30 h: :08/19/93 @ 18:45 h

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. FOR SPIKE & SPIKE DUP

RECOVERIES AND RPDS SEE QC SUMMARY. FINAL RESULTS.

	-				•					
	Parameter	Results	QQ Qua	: l Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini	
	Percent Solids Hydrocarbons EPH	77.8 66.9			SM17 2540G					
	VPH & BTEX			#47 KG	3510/3550/8100M		08/20	08/21	DR	
	Hydrocarbons VPH	10.3		mg/Kg	EPA 8015M/8020 EPA 5030/8015m	•	08/20	08/21	KWI	
	Benzene Toluene	0.162		mg/Kg	EPA 8020					
	Ethylbenzene	0.932		mg/Kg	EPA 8020		08/20	08/21 08/21	KW	
	P&m Xylene	0.179		mg/Kg	EPA 8020		08/20	08/21	KWI KWI	
	o-Xylene	0.651 0.266		mg/Kg	EPA 8020			08/21	KW	
		0.200		mg/Kg	EPA 8020		08/20	08/21	KW	
	Halogenated Volatile Or Methylene Chloride	0.020	U	- Al-	EPA 8010					
	1,1 Dichloroethylene	0.205	U	ng/Kg ng/Kg	EPA 8010		08/20		SGH	
	1,1 Dichloroethane Chloroform	0.020	U	mg/Kg	EPA 8010 EPA 8010		08/20		SGH	
	Carbontetrachloride	0.020	U	mg/Kg	EPA 8010		08/20		SGM	
	1, 2 Dichloropropane	0.020	U	mg/Kg	EPA 8010		08/20 08/20		SGH SGH	
*	Trichloroethylene	0.020	U	ng/Kg	EPA 8010		08/20	08/20	SGM	
	1,1,2 Trichloroethane	0.667 0.020	U	mg/Kg	EPA 8010		08/20		SGM	
•	Dibromochloromethane	0.020	U	mg/Kg mg/Kg	EPA 8010		08/20	08/20	SGM	
	Tetrachloroethylene	0.020	Ü	mg/Kg	EPA 8010		08/20	08/20	SGM	
	Chlorobenzene	0.718	_	ing/Kg	EPA 8010 EPA 8010		08/20	08/20	SGM	
	Trichlorofluoromethane Transi2Dichloroethylene	0.020	U	mg/Kg	EPA 8010		08/20		SGM	
	1,2 Dichloroethane	0.020	U	mg/Kg	EPA 8010		08/20 08/20		SGM SGM	
	1,1,1 Trichoroethane	0.020 0.020	U U	mg/Kg	EPA 8010		08/20		SGM	
•	Bromodichloromethane	0.020	บ	mg/Kg mg/Kg	EPA 8010		08/20 (	08/20	SGM	
	Trans1,3Dichloropropene	0.020	Ü	mg/Kg	EPA 8010		08/20	08/20	SGM	
	cis-1,3-Dichloropropene Bromoform	0.020	U	mg/Kg	EPA 8010 EPA 8010		08/20	08/20	SGM	
•	1122-Tetrachloroethane	0.020	U	mg/Kg	EPA 8010		08/20 ( 08/20 (	08/20 08/20	SGM	
	Chloromethane	0.020	U	mg/Kg	EPA 8010		08/20 ( 08/20 (		SGM SGM	
•	Bromoethane	0.020 0.020	U	mg/Kg	EPA 8010		08/20 (		SGM	
i	Vinyl Chloride	0.020	U U	mg/Kg	EPA 8010	(	08/20	8/20	SGM	
	Chloroethane	0.020	U	mg/Kg mg/Kg	EPA 8010	(	08/20 0	8/20	SGM	:
		1	-	™A\ vA	EPA 8010		08/20 0	8/20	SGM	1
•		•				'-				



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4199-2		PORT of AN	ALYSIS	5622
Client Sample ID :BTR BKGD S Matrix :SOIL	D01 SPIKE			5633 B STRE ANCHORAGE, AK 995 FEL (907) 562-23 FAX (907) 561-53
1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.020 U 0.020 U 0.020 U 0.020 U	mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/20 08/20 5 08/20 08/20 5 08/20 08/20 5 08/20 08/20 5
Organochlorine Pest Aldrin Alpha-BHC Beta-BHC Delta-BHC Gamma-BHC Chlordane 4,4'-DDD 4,4'-DDE 4,4'-DDT Dieldrin Endosulfan II Endosulfan Sulfate Endrin Endrin Aldehyde Heptachlor Heptachlor Epoxide Methoxychlor Toxaphene PCB-1016 PCB-1221 PCB-1232 PCB-1248 PCB-1254 PCB-1260	0.208 0.223 0.198 0.227 0.199 0.020 U 0.249 0.206 0.108 0.216 0.196 0.228 0.248 0.225 0.210 0.195 0.211 0.108 0.020 U 0.020 U 0.020 U 0.020 U 0.020 U 0.020 U 0.020 U	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080	08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N 08/21 08/24 N

UA = Unavailable

NA ⇒ Not Analyzed LT = Less Than

**GT** = Greater Than



See Special Instructions Above

^{**} See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. • D = Secondary dilution.



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

:93.4199-3 Client Sample ID :BTR BKGD SD01 SPIKE DUP

Matrix :SOIL

5633 B STREE ANCHORAGE, AK 995 TEL (907) 562-23. FAX (907) 561-53

Client Name Ordered By

hemlab Ref.

:ICF KAISER ENGINEERING

Project Name

:RAY MORRIS

Project# PWSID

:BARTER

:DEW LINE

:UA

RUSH Order

Received

:69775

Report Completed Collected

:08/30/93

:08/17/93 @ 14:30

:08/19/93 @ 18:45 h Technical Director: STEPHEN/C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. FOR SPIKE & SPIKE DUP RECOVERIES & RPDS SEE QC SUMMARY. FINALRESULTS.

QC Allowable Ext. Parameter Results Qual Units Anal Method Limits Date Date Inj Percent Solids 77.8 * Hydrocarbons EPH SM17 2540G 68.3 mg/Kg 3510/3550/8100M 08/20 08/21 DE VPH & BTEX EPA 8015M/8020 Hydrocarbons VPH 9.63 mg/Kq EPA 5030/8015m 08/20 08/21 KW Benzene 0.174 mg/Kg Toluene EPA 8020 08/20 08/21 0.992 KW. mg/Kg EPA 8020 Ethylbenzene 08/20 08/21 0.182 KW mg/Ka EPA 8020 P&m Xylene 08/20 08/21 KWI 0.694 mg/Kq 0-Xylene EPA 8020 08/20 08/21 KW 0.289 mg/Ka EPA 8020 08/20 08/21 KWI Halogenated Volatile Or Methylene Chloride EPA 8010 0.020 U mg/Kg 1,1 Dichloroethylene EPA 8010 08/20 08/20 SG 0.218 mg/Kg 1,1 Dichloroethane EPA 8010 08/20 08/20 SG 0.020 U mg/Kg EPA 8010 Chloroform 08/20 08/20 SGI 0.020 U mg/Kg Carbontetrachloride EPA 8010 08/20 08/20 SG 0.020 mg/Kg **EPA** 8010 1, 2 Dichloropropane 08/20 08/20 SGP. 0.020 mg/Kg EPA 8010 Trichloroethylene 08/20 08/20 SGF 0.562 mg/Kg 1,1,2 Trichloroethane EPA 8010 08/20 08/20 SGY. 0.020 U mg/Kg Dibromochloromethane EPA 8010 08/20 08/20 0.020 SGE U mg/Kg EPA 8010 Tetrachloroethylene 08/20 08/20 SGM 0.020 U mg/Kq Chlorobenzene EPA 8010 08/20 08/20 SGM 0.589 mg/Kg Trichlorofluoromethane EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg Trans12Dichloroethylene EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg 1,2 Dichloroethane EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg EPA 8010 1,1,1 Trichoroethane 08/20 08/20 SGM 0.020 U mg/Kg EPA 8010 Bromodichloromethane 08/20 08/20 SGM 0.020 U mg/Kg Trans1,3Dichloropropene EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg cis-1,3-Dichloropropene EPA 8010 08/20 08/20 SGM 0.020 U mg/Kq Bromoform EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg 1122-Tetrachloroethane EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg Chlorometh**ane** EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg Bromoethane EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg Vinyl Chloride EPA 8010 08/20 08/20 SGM 0.020 U mg/Kg EPA 8010 hloroethane 08/20 08/20 SGM 0.020 U mg/Kg EPA 8010 08/20 08/20 SGM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# :93.4199-3 5633 B STREE Client Sample ID :BTR BKGD SD01 SPIKE DUP ANCHORAGE, AK 9951 TEL (907) 562-234 Matrix :SOIL E4X (907) 561-530 1,4 Dichlorobenzene 0.020 U mg/Ka EPA 8010 08/20 08/20 2-Chloroethylvinylether S 0.020 U mg/Kg EPA 8010 08/20 08/20 1,3-Dichlorobenzene S 0.020 U mg/Kg EPA 8010 08/20 08/20 1,2-Dichlorobenzene S( 0.020 mg/Kg **EPA** 8010 08/20 08/20 S( Organochlorine Pest EPA 8080 Aldrin 0.217 mg/Kg EPA 8080 08/21 08/24 Alpha-BHC NF 0.231 mg/Kg EPA 8080 08/21 08/24 Beta-BHC NF 0.204 mg/Kg EPA 8080 08/21 08/24 Delta-BHC NF 0.238 mg/Kg _ **EPA** 8080 08/21 08/24 Gamma-BHC NF 0.200 mg/Kg EPA 8080 08/21 08/24 Chlordane NF 0.020 mg/Kq EPA 8080 08/21 08/24 4,4'-DDD NE 0.266 mg/Kq EPA 8080 08/21 08/24 4,4'-DDE NR 0.218 mg/Kg EPA 8080 08/21 08/24 4,4'-DDT NR 0.082 mg/Kg EPA 8080 08/21 08/24 Dieldrin NR 0.228 mg/Kg **EPA 8080** 08/21 08/24 Endosulfan I NR 0.209 mg/Kg **EPA** 8080 08/21 08/24 Endosulfan II NR 0.244 mg/Kg EPA 8080 08/21 08/24 NR Endosulfan Sulfate 0.257 mg/Kg EPA 8080 08/21 08/24 NR' Endrin 0.229 mg/Kg EPA 8080 08/21 08/24 NR( Endrin Aldehyde 0.225 mg/Kg **EPA** 8080 08/21 08/24 NR( Heptachlor 0.182 mg/Kg **EPA** 8080 08/21 08/24 Heptachlor Epoxide R( 0.220 mg/Kg EPA 8080 08/21 08/24 Methoxychlor 0.092 mg/Kg **EPA** 8080 08/21 08/24 NR( Toxaphene 0.020 U mg/Kg **EPA** 8080 08/21 08/24 NR( PCB-1016 0.020 U mg/Kg **EPA** 8080 08/21 08/24 NRC PCB-1221 0.020 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1232 0.020 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1242 0.020 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1248 0.020 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1254 0.020 U mg/Kg EPA 8080 08/21 08/24 NRC PCB-1260 0.020 U

mg/Ka

EPA 8080

D = Secondary dilution.

UA = Unavailable

08/21 08/24

NRC

NA = Not Analyzed

LT = Less Than GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)

THE HEAL SERVICES IN ALASKA COLORADO LITAL ....

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STRE ANCHORAGE, AK 995

TEL (907) 562-2: FAX (907) 561-50

themlab Ref.# Client Sample ID :BTR BKGD SD02

:93.4199-7

Matrix :SOIL

Client Name

:ICF KAISER ENGINEERING :RAY MORRIS

Ordered By Project Name Project# PWSID

:DEW LINE :BARTER

:UA

RUSH Order :69775

Report Completed :08/30/93

Collected :08/17/93 **@** 16:25 Received :08/19/93 @ 18:45 }

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. EPH PATTERN NOT CONSISTENT WITH MIDDLE DISTILLATE FUEL. FINAL RESULTS.

Parameter	Results	QC Qual	l Units	Method	Allowable Limits	Ext. Date	Anal Date	In.
Percent Solids	12.3		<b>k</b>	SM17 2540G				
Hydrocarbons EPH	195		mg/Kg	3510/3550/8100M		00.420	00.404	
VPH & BTEX			_	1010, 0000, 010011		08/20	08/21	DF
Hydrocarbons VPH	5.00	U	mg/Kg	EPA 8015M/8020 EPA 5030/8015m		08/20	08/21	KW
Benzene	0.250	U	na /!!-			,	VO, 21	I/M
Toluene	0.250	Ü	mg/Kg	EPA 8020		08/20	08/21	KW
Ethylbenzene	0.250	Ü	ng/Kg ng/Kg	EPA 8020		08/20	08/21	KW
P&m Xylene	0.250	Ü	mg/Kg	EPA 8020			08/21	KW
o-Xylene	0.250	Ü	mg/Kg	EPA 8020			08/21	KW:
Unlame at the same		_		EPA 8020		08/20	08/21	KWI
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethane 1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane Bromoethane	0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300 0.300	ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010		08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20	08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20	SGI SGI SGI SGI SGI SGI SGI SGI SGI SGI
Vinyl Chloride  hloroethane	0.300	U	mg/Kg mg/Kg mg/Kg	EPA 8010 EPA 8010 EPA 8010		08/20 0 08/20 0 08/20 0	8/20 8/20	SGM SGM SGM



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

Sign Booking				·
Chemlab Ref.# :93.4199-7 Client Sample ID :BTR BKGD SI Matrix :SOIL		REPORT of AN	ALYSIS	5633 B STFET ANCHURAGE, AK 995 71: 1907) 562-23- 43: 1907) 561-38
1,4 Dichlorobenzene 2-Chloroethylvinylether 1,3-Dichlorobenzene 1,2-Dichlorobenzene Organochlorine Pest	0.300 0.300	U mg/Kg U mg/Kg U mg/Kg U mg/Kg	EPA 8010 EPA 8010 EPA 8010 EPA 8010	08/20 08/20 S 08/20 08/20 S 08/20 08/20 S 08/20 08/20 S
Aldrin Alpha-BHC Beta-BHC Delta-BHC Gamma-BHC Chlordane 4,4'-DDD 4,4'-DDE 4,4'-DDT Dieldrin Endosulfan II Endosulfan Sulfate Endrin Endrin Aldehyde Heptachlor Heptachlor Heptachlor Toxaphene PCB-1016 PCB-1221 PCB-1232 PCB-1248 PCB-1254 PCB-1260	0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.008 (0.	I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg I mg/Kg	EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080 EPA 8080	08/21 08/24 NF 08/21 08/24 NF 08/21 08/24 NF 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NR 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC 08/21 08/24 NRC

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



**Member of the SGS Group (Sociéte Genérale de Surveillance)** 



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4616-17 Client Sample ID :BTR-BKGD-2SD023 :SOIL

PWSID

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS

Project Name Project#

:DEW LINE :BARTER :UA

WORK Order

:70612

Report Completed Collected

:10/28/93

:09/03/93

@ 13:30 hrs

Received

:09/04/93 @ 11:00 hrs

Technical Director: STEPHEN C. EDE

men

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA. FOR EPH 8100M RESULT INDICATES POSSIBLE BIOGENIC HYDROCARBON

CONTAMINATION SAMPLE IS A VERY WET MOSS WITH A % SOLID OF 16% ONLY.

	Parameter	Results	QC Qual	. Units	Method	Allowable Limits	Ext. Date	Anal Date	In <b>it</b>
	Percent Solids	16.2		· %	SM17 2540G				
	Hydrocarbons EPH	1150	D	ng∕Kg	2510/2550/0100V			09/07	EAL
	Hydrocarbons VPH	9.00	Ü	mg/Kg	3510/3550/8100M			09/21	J <b>BH</b>
		3.00	U	mg/ kg	EPA 5030/8015M		09/07	09/10	WLS
	Volatile Organics				F731 0260				
	B <b>en</b> zene	0.500	U	mg/Kg	EPA 8260				
	Bromobenzene	0.500	Ü	mg/Kg	EPA 8260			09/29	KWM
_	Bromochloromethane	0.500	Ü		EPA 8260			09/29	KWM
	Bromodichloromethane	0.500	Ü	mg/Kg	EPA 8260	•		09/29	KWM
•	Bromoform	0.500	Ü	mg/Kg	EPA 8260			09/29	KWH
	Bromomethane	0.500	U	mg/Kg	EPA 8260			09/29	KWM
	n-Butylbenzene	0.500	Ü	mg/Kg	EPA 8260			09/29	KWM
	sec-Butylbenzene	0.500	Ü	mg/Kg	EPA 8260			09/29	KWM
	tert-Butylbenzne	0.500	Ü	mg/Kg	EPA 8260			09/29	KWM
	Carbon Tetrachloride	0.500	U	mg/Kg	EPA 8260			09/29	KWM
	Chlorobenzene	0.500	Ü	mg/Kg	EPA 8260		09/07	09/29	KWM
	Chloroethane	0.500	Ü	mg/Kg	EPA 8260		09/07	09/29	KWM
	Chloroform	0.500	U	mg/Kg	EPA 8260		09/07	09/29	KWM
	Chloromethane	0.500	-	mg/Kg	EPA 8260		09/07	09/29	KWM
	2-Chlorotoluene	0.500	U U	mg/Kg	EPA 8260		09/07	09/29	KWM
	4-Chlorotoluene	0.500	IJ	mg/Kg	EPA 8260		09/07	09/29	KWM
	Dibromochloromethane	0.500	Ū	mg/Kg	EPA 8260		09/07	09/29	KWM
	12Dibromo3Chloropropane	0.500	Ŭ	mg/Kg	EPA 8260		09/07		KWM
	1,2-Dibromoethane	0.500	Ü	mg/Kg	EPA 8260		09/07	09/29	KWM
	Dibromomethane	0.500		mg/Kg	EPA 8260		09/07	09/29	KWM
	1,2-Dichlorobenzene	0.500	_	mg/Kg	EPA 8260		09/07		KWM
	1,3-Dichlorobenzene	0.500	_	mg/Kg	EPA 8260		09/07		KWM
	1,4-Dichlorobenzene	0.500		mg/Kg	EPA 8260		09/07		KWM
1	Dichlorodifluoromethane	0.500		mg/Kg	EPA 8260		09/07		KWM
	1,1-Dichloroethane	0.500		mg/Kg	EPA 8260		09/07		KWM
	1,2-Dichloroethane	0.500		mg/Kg	EPA 8260		09/07		KWM
	1,1-Dichloroethene	0.500	_	mg/Kg	EPA 8260		09/07		KWM
(	cis-1,2-Dichloroethene	0.500		mg/Kg	EPA 8260		09/07		KWM
1	trans1,2-Dichloroethene	0.500	-	mg/Kg	EPA 8260		09/07		KWM
:	1,2-Dichloropropane	0.500	_	mg/Kg	EPA 8260		09/07		KWM
1	1,3-Dichloropropane	0.500	_	mg/Kg	EPA 8260		09/07		KWM
		0.500	U	mg/Kg	EPA 8260		09/07		KWM



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4616-17 ANCHORAGE, AK 99518 Client Sample ID :BTR-BKGD-2SD02 Matrix :SOIL TEL: (907) 562-2343 FAX: (907) 561-5301 2.2-Dichloropropane 0.500 KWM U mq/Kq EPA 8260 09/07 09/29 1.1-Dichloropropene 0.500 EPA 8260 09/07 09/29 U mg/Kg KWM Ethylbenzene 0.500 **EPA 8260** H 09/07 09/29 mg/Kg KWM Hexachlorobutadiene 0.500 EPA 8260 09/07 09/29 Ħ mg/Kg KWH Isopropylbenzene 0.500 **EPA** 8260 U 09/07 09/29 mq/Kq KWM 0.500 p-Isopropyltoluene EPA 8260 09/07 09/29 U mg/Kg KWM Methylene Chloride 0.500 U mg/Kg EPA 8260 09/07 09/29 KWM Napthalene 0.500 U EPA 8260 09/07 09/29 mg/Kg KWM n-Propylbenzene 0.500 U mg/Kg EPA 8260 09/07 09/29 KWM 0.500 Styrene U mg/Kg EPA 8260 09/07 09/29 KWM 1112-Tetrachloroethane 0.500 11 mq/Kq **EPA** 8260 09/07 09/29 KWM 1122-Tetrachloroethane 0.500 U mq/Kq **EPA** 8260 09/07 09/29 KWM Tetrachloroethene 0.500 U mg/Kg EPA 8260 09/07 09/29 KWM Toluene 0.500 mg/Kg EPA 8260 09/07 09/29 KWM 1,2,3-Trichlorobenzene 0.500 U mg/Kg EPA 8260 09/07 09/29 KWM 1,2,4-Trichlorobenzene 0.500 U mg/Kg EPA 8260 09/07 09/29 .KWM 1,1,1-Trichloroethane 0.500 U EPA 8260 mq/Kq 09/07 09/29 KWM 1,1,2-Trichloroethane 0.500 U mg/Kg EPA 8260 09/07 09/29 KWM Trichloroethene 0.500 U mg/Kg **EPA** 8260 09/07 09/29 KWM Trichlorofluoromethane 0.500 U mg/Kg EPA 8260 09/07 09/29 KHM 1,2,3-Trichloropropane 0.500 U mg/Kg **EPA** 8260 09/07 09/29 KWM 1,2,4-Trimethylbenzene 0.500 U mg/Kg **EPA** 8260 09/07 09/29 KWM

* See Special Instructions Above

** See Sample Remarks Above

1,3,5-Trimethylbenzene

Vinyl Chloride

p+m-Xylene

o-Xylene

U = Undetected, Reported value is the practical quantification limit.

0.500

0.500

0.500

0.500

U

U

IJ

H

mg/Kg

mg/Kg

mg/Kg

mg/Kg

**EPA** 8260

EPA 8260

**EPA** 8260

EPA 8260

D = Secondary dilution.

UA = Unavailable

09/07 09/29

09/07 09/29

09/07 09/29

09/07 09/29

KWM

KWM

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

SASS B STREET ANCHORAGE, AK 9951E TEL: (907) 562-2343 FAX: (907) 561-5301

193.4199-6 Chemlab Ref. Client Sample ID :BTR BKGD SW01 HATER Matrix

:ICF KAISER ENGINEERING

Client Name RAY HORRIS Ordered By DEW LINE Project Name 1 BARTER Project* 1UA PWSID

169775 RUSH Order :08/30/93

Report Completed **9 14:00** :08/17/93 Collected 8 18:45 108/19/93 Received

Technical Director: STEPHEN C. EDE

Released By :

FINAL RESULTS. Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Qualifie / Common 15 Allowable Ext. Anal QC In Date Date Limits Method Results Qual Units Parameter 08/21 08/21 3510/3550/8100H ma/L 0.200 U Hydrocarbons EPH EPA 8015M/8020 K 08/20 08/20 VPH & BTEX EPA 5030/8015m mq/L 0.020 U Hydrocarbons VPH 08/20 08/20 EPA 8020 mg/L 0.0010 U ¥ 08/20 08/20 Benzene EPA 8020 mg/L 0.0010 U ĸ 08/20 08/20 Toluene EPA 8020 0.0010 mg/L U P 08/20 08/20 Ethylbenzene EPA 8020 ma/L 0.0010 U 08/20 08/20 p&m Xylene EPA 8020 U mg/L 0.0010 o-Xylene EPA 8010 Halogenated Volatile Or ş 08/20 08/20 EPA 8010 ma/L 0.0010 1 08/20 08/20 Methylene Chloride EPA 8010 0.0010 U ma/L 08/20 08/20 1,1 Dichloroethylene EPA 8010 mg/L 0.0010 U 08/20 08/20 1,1 Dichloroethane EPA 8010 mg/L 0.0010 U 08/20 08/20 chloroform EPA 8010 mg/L 0.0010 U 08/20 08/20 Carbontetrachloride EPA 8010 ma/L 0.0010 1, 2 Dichloropropane 08/20 08/20 EPA 8010 0.0010 mq/L 08/20 08/20 Trichloroethylene EPA 8010 mg/L 08/20 08/20 0.0010 1,1,2 Trichloroethane EPA 8010 Bq/L 08/20 08/20 0.0010 Dibromochloromethane EPA 8010 mq/L U 08/20 08/20 0.0010 Tetrachloroethylene EPA 8010 mg/L 0.0010 U 08/20 08/20 Chlorobenzene EPA 8010 mg/L 0.0010 08/20 08/20 Trichlorofluoromethane EPA 8010 0.0010 mg/L Trans12Dichloroethylene 08/20 08/20 EPA 8010/N)-J. 1 mq/L 0.0013 08/20 08/20 1,2 Dichloroethane EPA 8010 ma/L 0.0010 08/20 08/20 1,1,1 Trichoroethane EPA 8010 mg/L u 0.0010 08/20 08/20 Bromodichloromethane EPA 8010 0.0010 U mg/L 08/20 08/20 Trans1,3Dichloropropene EPA 8010 0.0010 U mg/L 08/20 08/20 cis-1,3-Dichloropropene EPA 8010 0.0010 ma/L 08/20 08/20 Bromoform **EPA** 8010 mg/L 0.0010 U 08/20 08/20 1122-Tetrachloroethane EPA 8010 U mg/L 0.0010 08/20 08/20 chloromethane EPA 8010 U mg/L 0.0010 08/20 08/20 Bromoethane EPA 8010 0.0010 U mg/L 08/20 08/20 Vinyl Chloride EPA 8010 u BQ/L 0.0010 08/20 08/20 Chloroethane EPA 8010 mg/L 0.0010 U 08/20 08/20 1,4 Dichlorobenzene **EPA 8010** 

mg/L

2-Chloroethylvinylether

0.0010



ENVIRONMENTAL LABORATORY SERVICES

REPORT	of	ANALYSIS	

Chemlab Ref.# :93.4199-6 Client Sample ID :BTR BKGD SW01

ANCHORAGE

Matrix :WATER	SW01				ANCHORAGE, AK 99 1EL (907) 562-2
					FA C (907) 561-5
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	08/20 08/ <b>20</b>
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010	
Organoshlandaaan				3310	08/20 08/20
Organoch <b>lorine Pest</b> Aldrin				EPA 8080	
	0.0001	U	mg/L	EPA 8080	09/21 00/22
Alpha-BHC Beta-BHC	0.0001	U	mg/L	EPA 8080	08/21 08/23
Delta-BHC	0.0001	U	mg/L	EPA 8080	08/21 08/23 1
	0.0001	U	mg/L	EPA 8080	08/21 08/23 1
Gamma-BHC	0.0001	U	mg/L	EPA 8080	08/21 08/23 1
Chlordane	0.001	U	mg/L	EPA 8080	08/21 08/23 h
4,4'-DDD	0.0001	U	mg/L	EPA 8080	08/21 08/23 k
4,4'-DDE	0.0001	U	mg/L	EPA 8080	08/21 08/23 N
4,4'-DDT	0.0001	U	mg/L	EPA 8080	08/21 08/23 N
Dieldrin	0.0001	U	mg/L	EPA 8080	08/21 08/23 N
Endosulfan I	0.0001	U	mg/L	EPA 8080	08/21 08/23 N
Endosulfan II	0.0001	U	ng/L	EPA 8080	08/21 08/23 N
Endosulfan Sulfate	0.0002	Ü	mg/L	EPA 8080	08/21 08/23 N
Endrin	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 N
Endrin Aldehyde	0.0001	Ū	mg/L	EPA 8080	08/21 08/23 NI
Heptachlor	0.0001	Ū	mg/L	EPA 8080	08/21 08/23 NI
Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080	08/21 08/23 NF
Methoxychlor	0.0001	U	mg/L	EPA 8080	08/21 08/23 NF
Toxaphene	0.001	U	mg/L	EPA 8080	08/21 08/23 NF
PCB-1016	0.001	U	mg/L	EPA 8080	08/21 08/23
PCB-1221	0.001	U	mg/L	EPA 8080	08/21 08/23 F
PCB-1232	0.001	U	mg/L	EPA 8080	08/21 08/23 NR
PCB-1242	0.001	U	mg/L	EPA 8080	08/21 08/23 NR
PCB-1248	0.001	U	mg/L	EPA 8080	08/21 08/23 NR
PCB-1254	0.001	U	mg/L	EPA 8080	08/21 08/23 NR
PCB-1260	0.001	U	mg/L	EPA 8080	08/21 08/23 NR
			3, <del></del>	- A 0000	08/21 08/23 NR

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

**GT** = **Greater** Than



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Ref. :93.4179-2 Ment Sample ID :BTR BKGD SW01

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

client Name ordered By project Name project*

PWSID

:ICF KAISER ENGINEERING

:RAY MORRIS :DEW LINE :BARTER

:UA

WORK Order :69712

Report Completed :09/20/93

:08/17/93 Collected @ 14:00 hr Received :08/19/93 @ 10:50 hr

Technical Director: STEPHEN C. EDE Released By : Mark C. &

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

Param	eter 	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini [.]
Volat	ile Organics				EPA 8260				
Benze		0.0010	Ü	mg/L	EPA 8260		08/20	08/20	KWI
	benzene	0.0010	U	mg/L	EPA 8260			08/20	KMI
Bromo	chloromethane	0.0010	Ü	mg/L	EPA 8260			08/20	KWI
	dichloromethane	0.0010	ប	mg/L	EPA 8260			08/20	KWI
Bromo		0.0010	U	mg/L	EPA 8260			08/20	KMJ
	methane	0.0010	U	mg/L	EPA 8260			08/20	KWI
	ylbenzene	0.0010	U	mg/L	EPA 8260			08/20	KWI
ec-B	utylbenzene	0.0010	บ	mg/L	EPA 8260			08/20	KWP
ert-	Butylbenzne	0.0010	Ü	mg/L	EPA 8260			08/20	KWI
Carbo	n Tetrachloride	0.0010	U	mg/L	EPA 8260			08/20	KWP
	obenzene	0.0010	U	mg/L	EPA 8260			08/20	KW
	oethane	0.0010	U	mg/L	EPA 8260			08/20	KWI
Chlore		0.0010	U	mg/L	EPA 8260			08/20	KWI
Chlore	omethane	0.0010	U	mg/L	EPA 8260			08/20	KWI
2-Chl	orotoluene	0.0010	U	mg/L	EPA 8260			08/20	KWI
	orotoluene	0.0010	U	mg/L	EPA 8260			08/20	KWE
Dibro	mochloromethane	0.0010	U	mg/L	EPA 8260			08/20	KWY
12016	romo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWE
1,2-0	ibromoethane	0.0010	U	mg/L	EPA 8260		08/20		KWE
	momethane	0.0010	U	mg/L	EPA 8260		08/20		KWE
1,2-0	ichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20		KWM
1,3-D	ichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20		KWE
1,4-0	ichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWE
DICHI	orodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
	ichloroethane	0.0010	Ü	mg/L	EPA 8260		08/20	08/20	KWM
	ichloroethane	0.0030		mg/L	EPA 8260		08/20	08/20	KWM
	ichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
trane:	,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
1 2-0	1,2-Dichloroethene ichloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	ichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	ichloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWM
1 1-0	ichloropropene	0.0010 0.0010	U U	mg/L	EPA 8260		08/20		KWM
Ethvlt	penzene	0.0010	-	mg/L	EPA 8260		08/20		KWM
	nlorobutadiene	0.0010	U U	mg/L	EPA 8260		08/20		KWM
	pylbenzene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	propyltoluene	0:0010	U	mg/L	EPA 8260		08/20		KWM
150	op/reoraciie	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM





## COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES



5 N/UE - 308		DETO	DT of ANI	ALVETE WAY		
Chemlab Ref.# :93.4179-2 Client Sample ID :BTR BKGD SW Matrix :WATER	01	KEPU	RI OT AN	ALYSIS XX	TE	5633 B STREET RAGE, AK 99518 L: (907) 562-2343 K: (907) 561-5301
Methylene Chloride	0.0010	U	mg /[	EPA 8260	08/20 (	NO /20 1555
Napthalene	0.0010		mg/L	EPA 8260		
n-Propylbenzene	0.0010		mg/L	EPA 8260	08/20 (	
Styrene	0.0010		ng/L ng/L	EPA 8260	08/20 (	
1112-Tetrachloroethane	0.0010		mg/L	EPA 8260	08/20 ( 08/20 (	
1122-Tetrachloroethane	0.0010		mg/L	EPA 8260	08/20 (	
Tetrachloroethene	0.0010		mg/L	EPA 8260	08/20 (	
Toluene	0.0010		mg/L	EPA 8260	08/20 (	
1,2,3-Trichlorobenzene	0.0010		mg/L	EPA 8260	08/20 (	
1,2,4-Trichlorobenzene	0.0010		mg/L	EPA 8260	08/20 (	
1,1,1-Trichloroethane	0.0010		mg/L	EPA 8260	08/20 (	
1,1,2-Trichloroethane	0.0010		mg/L	EPA 8260	08/20 (	
Trichloroethene	0.0010		mg/L	EPA 8260	08/20 (	
Trichlorofluoromethane	0.0010		mg/L	EPA 8260		
1,2,3-Trichloropropane	0.0010				08/20 ( 08/20 (	
1,2,4-Trimethylbenzene	0.0010		mg/L	EPA 8260 EPA 8260		•
1,3,5-Trimethylbenzene	0.0010		mg/L		08/20 (	
Vinyl Chloride	0.0010		mg/L	EPA 8260 EPA 8260	08/20 ( 08/20 (	
p+m-Xylene	0.0010	U	mg/L	EPA 8260		
o-Xylene	0.0010	Ü	mg/L mg/L	EPA 8260	08/20 ( 08/20 (	
o kyrene	0.0010	U	mg/L	EFA 6200	00/20	8/20 KW
Semivolatile Organics				EPA 8270		
Phenol	0.01	U	mg/L	EPA 8270	08/21 (	8/23
bis(2-Chloroethyl)ether	0.01		mg/L	EPA 8270	08/21 (	
2-Chlorophenol	0.01		mg/L	EPA 8270	08/21 (	
1,3-Dichlorobenzene	0.01		mg/L	EPA 8270	08/21 (	
1,4-Dichlorobenzene	0.01		mg/L	EPA 8270	08/21 (	
Benzyl Alcohol	0.01	U	mg/L	EPA 8270	08/21 (	
1,2-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21 (	
2-Methylphenol	0.01	ប	mg/L	EPA 8270	08/21 0	
bis(2-Chloroisopropyl)e	0.01	U	mg/L	EPA 8270	08/21 (	
4-Methylphenol	0.01	U	mg/L	EPA 8270	08/21 0	
n-Nitroso-di-n-Propylam	0.01	U	mg/L	EPA 8270	08/21 0	
Hexachloroethane	0.01	U	mg/L	EPA 8270	08/21 0	
Nitrobenzene	0.01	U	mg/L	EPA 8270	08/21 0	
Isophorone	0.01	U	mg/L	EPA 8270	08/21 (	8/23 MTT
2-Nitrophenol	0.01	U	mg/L	EPA 8270	08/21 (	
2,4-Dimethylphenol	0.01	U	mg/L	EPA 8270	08/21 0	8/23 MTT
Benzoic Acid	0.01	U	mg/L	EPA 8270	08/21 0	8/23 MTT
bis(2-Chloroethoxy)Meth	0.01	U	mg/L	EPA 8270	08/21 0	8/23 MTT
2,4-Dichlorophenol	0.01	U	mg/L	EPA 8270	08/21 0	8/23 MTT
1,2,4-Trichlorobenzene	0.01	Ü	mg/L	EPA 8270	08/21 0	8/23 MTT
Naphthalene	0.01	U	mg/L	EPA 8270	08/21 0	
4-Chloroaniline	0.01	U	mg/L	EPA 8270	08/21 0	
Hexachlorobutadiene	0.01	บ	mg/L	EPA 8270	08/21 0	
4-Chloro-3-Methylphenol	0.01	U	mg/L	EPA 8270	08/21 0	
2-Methylnaphthalene	0.01	Ü	mg/L	EPA 8270	08/21 0	
Hexachlorocyclopentadie	0.01	U	mg/L	EPA 8270	08/21 0	
2,4,6-Trichlorophenol	0.01	Ü	mg/L	EPA 8270	08/21 0	
2,4,5-Trichlorophenol	0.01	Ü	mg/L	EPA 8270	08/21 0	
2-Chloronaphthalene	, 0.01	U	mg/L	EPA 8270	08/21 0	8/23





# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

5 NGE   908	<del></del>		·	che /				
Chemlab Ref.# :93.4179-2		REP	ORT of ANI	alysis XX		:	56 <b>33 B</b> ST	REET
Client Sample ID :BTR BKGD SI	201					ANCHOR	RAGE, AK	99518
Matrix :WATER	MOT					EL FAX	: (907) 562 : (907) 561	2-2343 1-5301
· MAILLY							(===, 00	
2-Nitroaniline	0.01	U	mg/L	EPA 8270		08/21 0	0 /22	um
Dimethylphthalate	0.01	U	mg/L	EPA 8270		08/21 0	0/23	HT
Acenaphthylene	0.01	Ü	mg/L	EPA 8270		00/21 0	0/23	HT
2,6-Dinitrotoluene	0.01	Ü	mg/L	EPA 8270		08/21 0	0/23	HT
3-Nitroaniline	0.01	Ū	mg/L	EPA 8270		08/21 0	8/23	HT
Acenaphthene	0.01	Ü	mg/L	EPA 8270		08/21 0	8/23	HT
2,4-Dinitrophenol	0.01	Ü	mg/L	EPA 8270		08/21 0	8/23	HT
4-Nitrophenol	0.01	Ū	mg/L	EPA 8270		08/21 0	8/23	HT
Dibenzofuran	0.01	Ü	mg/L	EPA 8270		08/21 0	8/23	HT
2,4-Dinitrotoluene	0.01	Ü	mg/L	EPA 8270		08/21 0	8/23	MT
Diethylphthalate	0.01	Ū	mg/L	EPA 8270		08/21 0	8/23	HT
4-Chlorophenyl-Phenylet	0.01	Ū	mg/L	EPA 8270		08/21 0		MT
Fluorene	0.01	Ū	mg/L	EPA 8270		08/21 0		MT
4-Nitroaniline	0.01	Ū	mg/L	EPA 8270		08/21 0		HT
4,6-Dinitro-2-Methylphe	0.01	Ü	mg/L	EPA 8270		08/21 0	8/23	HT.
n-Nitrosodiphenylamine	0.01	Ü	mg/L	EPA 8270		08/21 0	8/23	MT
4-Bromophenyl-Phenyleth	0.01	Ü	mg/L	EPA 8270		08/21 0		MT.
Hexachlorobenzene	0.01	Ŭ	mg/L	EPA 8270		08/21 0	8/23	HT.
Pentachlorophenol	0.01	Ü	mg/L	EPA 8270		08/21 0	8/23	HT.
Phenanthrene	0.01	Ü	mg/L	EPA 8270		08/21 0		HT.
Anthracene	0.01	Ū	mg/L	EPA 8270		08/21 0	8/23 8/23	MT.
di-n-Butylphthalate	0.01	Ū	mg/L	EPA 8270		08/21 0		HT.
Fluoranthene	0.01	Ū	mg/L	EPA 8270		08/21 00 08/21 00		HT
Pyrene	0.01	U	mg/L	EPA 8270		08/21 0		MIT
Butylbenzylphthalate	0.01	U	mg/L	EPA 8270		08/21 0	0/23 8/23	MIC
3,3-Dichlorobenzidine	0.01	U	mg/L	EPA 8270		08/21 0		MT:
Benzo(a)Anthracene	0.01	U	mg/L	EPA 8270		08/21 0		MT
Chrysene	0.01	U	mg/L	EPA 8270		08/21 0		MTI
bis(2-Ethylhexyl)Phthal	0.01	Ü	mg/L	EPA 8270		08/21 0		MTI
di-n-Octylphthalate	0.01	U	mg/L	EPA 8270		08/21 0		דוא
Benzo(b)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 0		MTI
Benzo(k)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 0		MTI
Benzo(a)Pyrene	0.01	U	mg/L	EPA 8270		08/21 0		MTI
Indeno(1,2,3-cd)Pyrene	0.01	Ü	mg/L	EPA 8270		08/21 0		MTI
Dibenz(a,h)Anthracene	0.01	U	mg/L	EPA 8270		08/21 0		MTI
Benzo(g,h,i)Perylene	0.01	Ü	mg/L	EPA 8270		08/21 08		MTI
Total Metals Analysis								
ICP Screen, ICF				<del>-</del>				
Aluminum	0.10		-	EPA	n/a			
Antimony	0.10	Ü	mg/L	EPA 6010		08/23 08		DFL
Arsenic	0.10	Ü	mg/L	EPA 6010		08/23 08		DFL
Barium	0.10 0.069	U	mg/L	EPA 6010		08/23 08		DFL
Beryllium	0.050	1.7	mg/L	EPA 6010		08/23 08		DFL
Cadmium	0.050	U U	mg/L	EPA 6010		08/23 08		DFL
Calcium	38	u	mg/L	EPA 6010		08/23 08		DFL
Chromium	0.050	U	mg/L	EPA 6010		08/23 08		DFL
Cobalt	0.030	Ü	ng/L	EPA 6010		08/23 08		DFL
Copper	0.050	Ü	mg/L	EPA 6010		08/23 08		DFL
Iron	0.28	J	mg/L	EPA 6010		08/23 08		DFL
Lead	0.10	U	mg/L mg/L	EPA 6010 EPA 6010		08/23 08		DFL
,	1	•	1143/ L	FLW ONIO		08/23 08	5/24	DFL





ENVIRONMENTAL LABORATORY SERVICES

S-NG1 1908		D1	EDODE of M	ALYSIS &C			T
Chemlab Ref.#	:93.4179-2	Ru	EPORT OF AN	ALISIS X			STREET
Client Sample ID						ANCHORAGE, TEL: (907)	
Matrix	:WATER			2110	1 0000	FAX: (907)	
nattix	IWAILK			qua	l com		
Magnesium	1	4	mg/L	EPA 6010		08/23 08/24	4 DF
Manganese	0.05		U mg/L	EPA 6010		08/23 08/24	
Molybdenum	0.05			EPA 6010			
Nickel	0.05		U mg/L	EPA 6010		08/23 08/24	
Potassium	5.		U mg/L	EPA 6010		08/23 08/24 08/23 08/24	
Selenium	0.1		U mag/L	EPA 6010			
Silver	0.05		U mag/L	EPA 6010		08/23 08/24	
Sodium	4			EPA 6010		08/23 08/24	
Thallium	0.00		mg/L U mg/L	EPA 7841 UJ	8.1	08/23 08/24	
Vanadium	0.05				8.L	08/23 08/26	
				EPA 6010		08/23 08/24	
Zinc	0.05	U	U mg/L	EPA 6010		08/23 08/24	1 DF
Dissolved Metal	ls Analys	_		_			
ICP Screen, ICF				EPA	n/a		
Aluminum	0.1	0 1	U mg/L	EPA 6010	, -	08/23 08/24	DF:
Antimony	0.1		U mg/L	EPA 6010		08/23 08/24	
Arsenic	0.1		U mg/L	EPA 6010		08/23 08/24	
Barium	0.06		mg/L	EPA 6010		08/23 08/24	
Beryllium	0.05		U mg/L	EPA 6010		08/23 08/24	
Cadmium	0.05		U mg/L	EPA 6010		08/23 08/24	
Calcium	3		mg/L	EPA 6010		08/23 08/24	
Chromium	0.05		U mg/L	EPA 6010		08/23 08/24	
Cobalt	0.1		U mg/L	EPA 6010		08/23 08/24	
Copper	0.05		U mg/L	EPA 6010		08/23 08/24	
Iron	0.1		U mg/L	EPA 6010		08/23 08/24	
Lead	0.1		U mg/L	EPA 6010		08/23 08/24	
Magnesium	1		mg/L	EPA 6010		08/23 08/24	
Manganese	0.05		U mg/L	EPA 6010		08/23 08/24	
Molybdenum	0.05		U mg/L	EPA 6010		08/23 08/24	
Nickel	0.05		U mg/L	EPA 6010		08/23 08/24	
Potassium	5.		U mg/L	EPA 6010		08/23 08/24	
Selenium	0.1		U mg/L	EPA 6010		08/23 08/24	
Silver	0.05		U mg/L	EPA 6010		08/23 08/24	
Sodium	5		mg/L	EPA 6010		08/23 08/24	
Thallium	0.00		U mg/L	EPA 7841 UJ	B.1	08/23 08/26	
Vanadium	0.05		mg/L	EPA 6010		08/23 08/24	
Zinc	0.05		mg/L	EPA 6010		08/23 08/24	
24110	0.03	•	mg/ L	LIA 0010			. Dil
TOC, Nonpurgabl		_		EPA 9060	n/a	08/27 08/27	_
TOC Range	5.0-6.		mg/L	EPA 9060	(ampos	,	
TOC Concentr	ration 5.	0 1	U mg/L	EPA 9060		08/27	CMF
Danidos Har Di	llkamahla	0	w = /*	mn 144 0 ==	D BFM II.	8.94)	CDr
Residue, Non-Fi		8	mg/L	EPA 160.2 J	_	08/24 08/24	
Residue,Filtera	able(TDS) 32	Q	mg/L	EPA 160.1	500	08/20 08/23	RJK

_______

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



**SGS** Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

:ICF KAISER ENGINEERING

REPORT of ANALYSIS

:93.4199-5 Client Sample ID :BTR BKGD SW02

Matrix :WATER

5633 B STRE ANCHORAGE, AK 995 TEL (907) 562-23

FAX (907) 561-53

RUSH Order :69775 Report Completed :08/30/93 Collected

:08/17/93 @ 16:09 r Received :08/19/93 @ 18:45 h

Technical Director: STEPHEN, C. EDE

Released By :

Client Name

Ordered By

Project Name Project# PWSID

Chemlab Ref.#

:DEW LINE :BARTER :UA

:RAY MORRIS

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T. FINAL RESULTS.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In:
Hydrocarbons EPH	0.200	U	mg/L	3510/3550/8100M	~~~~~~~~	08/21	 08/21	JE
VPH & BTEX Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/20	08/20	KW
Benzene Toluene Ethylbenzene p&m Xylene o-Xylene	0.0010 0.0010 0.0010 0.0010 0.0010	บ บ บ บ	mg/L mg/L mg/L mg/L	EPA 8020 EPA 8020 EPA 8020 EPA 8020 EPA 8020		08/20 08/20 08/20 08/20	08/20 08/20 08/20 08/20	KW KW KW
Halogenated Volatile Or Methylene Chloride 1,1 Dichloroethylene 1,1 Dichloroethane Chloroform Carbontetrachloride 1, 2 Dichloropropane Trichloroethylene 1,1,2 Trichloroethane Dibromochloromethane Tetrachloroethylene Chlorobenzene Trichlorofluoromethane Trans12Dichloroethylene 1,2 Dichloroethylene 1,1,1 Trichoroethane Bromodichloromethane Trans1,3Dichloropropene cis-1,3-Dichloropropene Bromoform 1122-Tetrachloroethane Chloromethane Bromoethane Vinyl Chloride Chloroethane 1,4 Dichlorobenzene	0.0010 0.0010 0.0010 0.0011 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010	טטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטט	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010 EPA 8010	·	08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08	08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20 08/20	KWI KWI KWI KWI KWI KWI KWI KWI KWI KWI
-Chloroethylvinylether	0.0010 0.0010	U U	mg/L mg/L	EPA 8010 EPA 8010	(	08/20 0 08/20 0 08/20 0	8/20	KWH KWH

1 -1 416 1 # 4 + 62



ENVIRONMENTAL LABORATORY SERVICES

REPORT	of	ANAI	YCTC.
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Chemlab Ref.# :93.4199-5 Client Sample ID :BTR BKGD SW02

5633 B STRE ANCHORAGE, AK 995

• • • •	:WATER				FEL (907) 562-23 FAX (907) 561-53
1 2 0 1 1 1					, 20. 30
1,3-Dichlorobenz	zene 0.0010	U	mg/L	EPA 8010	08/20 08/ <b>20</b> i
1,2-Dichlorobenz	zene 0.0010	U	mg/L	EPA 8010	08/20 08/20
Organochlorine F	Pest				•
Aldrin	0.0001	Ü	A	EPA 8080	
Alpha-BHC	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 h
Beta-BHC	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 N
Delta-BHC	0.0001	_	mg/L	EPA 8080	08/21 08/23 N
Gamma-BHC	0.0001	U	mg/L	EPA 8080	08/21 08/23 N
Chlordane	0.001	U	rag/L	EPA 8080	08/21 08/23 N
4,4'-DDD		U	mg/L	EPA 8080	08/21 08/23 N
4,4'-DDE	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 N
4,4'-DOT	0.0001	U	mg/L	EPA 8080	08/21 08/23 N
Dieldrin	0.0001	U	mg/L	EPA 8080	08/21 08/23 NI
	0.0001	U	mg/L	EPA 8080	08/21 08/23 NI
Endosulfan I	0.0001	U	mag/L	EPA 8080	08/21 08/23 NT
Endosulfan II	0.0001	U	ng/L	EPA 8080	08/21 08/23 NE
Endosulfan Sulfa		U	mg/L	EPA 8080	08/21 08/23 NF
Endrin	0.0001	U	mg/L	EPA 8080	08/21 08/23 NF
Endrin Aldehyde	0.0001	U	mg/L	EPA 8080	08/21 08/23 NF
Heptachlor	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 NR
Heptachlor Epoxi	de 0.0001	U	mg/L	EPA 8080	08/21 08/23 NR
Methoxychlor	0.0001	U	mg/L	EPA 8080	08/21 08/23 NR
Toxaphene	0.001	U	mg/L	EPA 8080	08/21 08/23 R
PCB-1016	0.001	U	mg/L	EPA 8080	08/21 08/23 NR
PCB-1221	0.001	U	mg/L	EPA 8080	08/21 08/23 NR
PCB-1232	0.001	U	mg/L	EPA 8080	08/21 08/23 NR
PCB-1242	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
PCB-1248	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
PCB-1254	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
PCB-1260	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. LT = Less Than . D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

**GT** = Greater Than



See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

hemlab Ref.# :93.4179-3 Client Sample ID :BTR BKDG SW02

Matrix

Client Name

Ordered By

Project#

PWSID

Project Name

:WATER

:RAY MORRIS

:DEW LINE

:BARTER

:UA

WORK Order :69712

Report Completed :09/20/93 Collected

:08/17/93 @ 16:09 hr Received :08/19/93 @ 10:50 hr

**5633 B STREET** 

ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

:ICF KAISER ENGINEERING

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In <b>i</b> ¹
	Volatile Organics				EPA 8260				
	Benzene	0.0010	U	mg/L	EPA 8260		00.00		
	Bromobenzene	0.0010	Ü	mg/L	EPA 8260		08/20	08/20	KWI
	Bromochloromethane	0.0010	ŭ	mg/L	EPA 8260		08/20	08/20	- KWI
	Bromodichloromethane	0.0010	Ü	mg/L	EPA 8260			08/20	KWI
	Bromoform	0.0010	Ü	mg/L	EPA 8260			08/20	KWI
	Bromomethane	0.0010	บ	mg/L	EPA 8260			08/20	KW
	n-Butylbenzene	0.0010	บ	mg/L				08/20	KWI
	sec-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			08/20	KW
	tert-Butylbenzne	0.0010	Ü	mg/L	EPA 8260		08/20	08/20	KWP
	Carbon Tetrachloride	0.0010	Ü	mg/L	EPA 8260		08/20		KWI
	Chlorobenzene	0.0010	Ü		EPA 8260		08/20		KWP
	Chloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWI
	Chloroform	0.0010	บ	mg/L	EPA 8260		08/20	08/20	KWK
	Chloromethane	0.0010	U	mg/L	EPA 8260		08/20		KWI:
	2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20		KWE
	4-Chlorotoluene	0.0010	-	mg/L	EPA 8260		08/20		KWK
	Dibromochloromethane	0.0010	U U	mg/L	EPA 8260		08/20		KWE
	12Dibromo3Chloropropane	0.0010	_	mg/L	EPA 8260		08/20		KWE
	1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
1	Dibromomethane	0.0010	Ü	mg/L	EPA 8260		08/20	08/20	KWM
,	1,2-Dichlorobenzene		U	mg/L	EPA 8260		08/20	08/20	KWM
	1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
	1,4-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/20	08/20	KWM
1	Dichlorodifluoromethane	0.0010	Ü	mg/L	EPA 8260		08/20	08/20	KWM
	1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
	1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
	1,1-Dichloroethene	0.0032	••	mg/L	EPA 8260		08/20	08/20	KWM
	cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWH
ì	trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
	1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	2,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	1-Dichloropropage	0.0010	U	mg/L	EPA 8260		08/20		KWM
	1,1-Dichloropropene Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/20		KWM
t	dexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/20		KWM
1	revacuitoroparagiene	0.0010	U	mg/L	EPA 8260		08/20		KWM
-	sopropylbenzene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	Isopropyltoluene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	•	1						/	******



REPORT of ANALYSIS SEC

ENVIRONMENTAL LABORATORY SERVICES



5633 B STREET

Chemlab Ref.# :93.4179-3 Client Sample ID :BTR BKDG SWG Matrix :WATER	02	ica on	i or ru		T	5633 B S IORAGE, AK EL: (907) 56 FAX: (907) 56	99518 2-2343
1111221							
Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KW
Napthalene	0.0010	U	mg/L	EPA 8260		08/20	KWP
n-Propylbenzene	0.0010	U	mg/L	EPA 8260		08/20	KWI
Styrene	0.0010	U	mg/L	EPA 8260		08/20	KM
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260		08/20	KWP
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260		08/20	KW
Tetrachloroethene	0.0010	U	mg/L	EPA 8260		08/20	KWP
Toluene	0.0010	U	mg/L	EPA 8260		08/20	KWP
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	KWI
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	KW
1,1,1-Trichloroethane	0.0010	U	mg/L	EPA 8260		08/20	KWP
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260		08/20	KWK
Trichloroethene	0.0010	U	mg/L	EPA 8260		08/20	KW
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260		08/20	KWP
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWK
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	KWE
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260		08/20	KWK
Vinyl Chloride	0.0010	U	mg/L	EPA 8260		08/20	KWE
p+m-Xylene	0.0010	U	mg/L	EPA 8260		08/20	KMR
o-Xylene	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWE
Semivolatile Organics				EPA 8270			
Phenol	0.01	U	mg/L	EPA 8270	08/21	08/23	AIT
bis(2-Chloroethyl)ether	0.01	U	mg/L	EPA 8270	08/21	08/23	MII
2-Chlorophenol	0.01	U	mg/L	EPA 8270	08/21	08/23	HTT
1,3-Dichlorobenzene	0.01	U	mg/L	EPA 8270	08/21	08/23	HII
1,4-Dichlorobenzene	0.01	U	mg/L	EPA 8270		08/23	HIT
Benzyl Alcohol	0.01	U	mg/L	EPA 8270	08/21	08/23	MIT
1,2-Dichlorobenzene	0.01	U	mg/L	EPA 8270		08/23	HTI
2-Methylphenol	0.01	U	mg/L	EPA 8270	08/21	08/23	MII
bis(2-Chloroisopropyl)e	0.01	U	mg/L	EPA 8270		08/23	HTT
4-Methylphenol	0.01	U	mg/L	EPA 8270		08/23	MIT
n-Nitroso-di-n-Propylam	0.01	U	mg/L	EPA 8270		08/23	HTT
Hexachloroethane	0.01	U	mg/L	EPA 8270		08/23	HTT
Nitrobenzene	0.01	U	mg/L	EPA 8270		08/23	HTT
Isophorone	0.01	U	mg/L	EPA 8270		08/23	HTT
2-Nitrophenol	0.01	U	mg/L	EPA 8270		08/23	MTT
2,4-Dimethylphenol	0.01	U	mg/L	EPA 8270		08/23	MTT
Benzoic Acid	0.01	U	mg/L	EPA 8270		08/23	MTT
bis(2-Chloroethoxy)Meth	0.01	U	mg/L	EPA 8270		08/23	MTT
2,4-Dichlorophenol	0.01	U	mg/L	EPA 8270		08/23	HTT
1,2,4-Trichlorobenzene	0.01	U	mg/L	EPA 8270		08/23	MIT
Naphthalene	0.01	U	mg/L	EPA 8270		08/23	MTT
4-Chloroaniline	0.01	U	mg/L	EPA 8270		08/23	MTT
Hexachlorobutadiene	0.01	U	mg/L	EPA 8270		08/23	MTT
4-Chloro-3-Methylphenol	0.01	Ü	mg/L	EPA 8270		08/23	MTT
2-Methylnaphthalene	0.01	Ü	mg/L	EPA 8270		08/23	HTT
Hexachlorocyclopentadie	0.01	Ü	mg/L	EPA 8270		08/23	MTT
2,4,6-Trichlorophenol	0.01	Ü	mg/L	EPA 8270		08/23	HTT
2,4,5-Trichlorophenol	0.01	U	mg/L	EPA 8270		08/23	
2-Chloronaphthalene	, 0.01	Ü	mg/L	EPA 8270	_00/21	08/23	T



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

5 NJE 908		מניום	ODT 65 111	NUCTOFIC			
Chemlab Ref.# :93.4179-3		תבר	OKI OF AN	alysis 500		5633	8 STREET
Client Sample ID :BTR BKDG ST	<b>202</b>					ANCHORAGI	E. AK 99518
Matrix :WATER	NU2					TEL: (90	7) 562-2343
· male						FAX. (80	7) 561-5301
2-Nitroaniline	0.01	U	mg/L	EPA 8270		00/01 00/	
Dimethylphthalate	0.01	Ü	mg/L	EPA 8270		08/21 08/	23 MT
Acenaphthylene	0.01	Ü	mg/L	EPA 8270		08/21 08/	
2,6-Dinitrotoluene	0.01	Ü	mg/L	EPA 8270		08/21 08/	23 HT
3-Nitroaniline	0.01	Ü	mg/L	EPA 8270		08/21 08/	
Acenaphthene	0.01	ŭ	mg/L	EPA 8270		08/21 08/	
2,4-Dinitrophenol	0.01	Ü	mg/L	EPA 8270		08/21 08/	23 HT.
4-Nitrophenol	0.01	Ŭ	mg/L	EPA 8270		08/21 08/	
Dibenzofuran	0.01	Ü	mg/L	EPA 8270		08/21 08/	
2,4-Dinitrotoluene	0.01	Ü	mg/L	EPA 8270		08/21 08/3	
Diethylphthalate	0.01	Ü	ng/L	EPA 8270		08/21 08/3	
4-Chlorophenyl-Phenylet	0.01	Ü	mg/L	EPA 8270		08/21 08/3	
Fluorene	0.01	Ū	ng/L	EPA 8270		08/21 08/3	
4-Nitroaniline	0.01	Ū	mg/L	EPA 8270		08/21 08/3	
4,6-Dinitro-2-Methylphe	0.01	Ū	mg/L	EPA 8270		08/21 08/3	23 MT
n-Nitrosodiphenylamine	0.01	U	mg/L	EPA 8270		08/21 08/3 08/21 08/3	23 MT
4-Bromophenyl-Phenyleth	0.01	U	mg/L	EPA 8270		08/21 08/	23 MT
Hexachlorobenzene	0.01	U	mg/L	EPA 8270		08/21 08/3	
Pentachlorophenol	0.01	U	mg/L	EPA 8270		08/21 08/2	23 MIT 23 MIT
Phenanthrene	0.01	U	mg/L	EPA 8270		08/21 08/2	
Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/2	
di-n-Butylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/2	
Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/2	
Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/	
Butylbenzylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/2	
3,3-Dichlorobenzidine	0.01	U	mg/L	EPA 8270		08/21 08/2	
Benzo(a)Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/2	
Chrysene	0.01	U	mg/L	EPA 8270		08/21 08/2	
bis(2-Ethylhexyl)Phthal	0.01	U	mg/L	EPA 8270		08/21 08/2	
di-n-Octylphthalate	0.01	U	mg/L	EPA 8270		08/21 08/2	
Benzo(b)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/2	
Benzo(k)Fluoranthene	0.01	U	mg/L	EPA 8270		08/21 08/2	
Benzo(a)Pyrene	0.01	Ü	mg/L	EPA 8270		08/21 08/2	
Indeno(1,2,3-cd)Pyrene	0.01	U	mg/L	EPA 8270		08/21 08/2	
Dibenz(a,h)Anthracene	0.01	U	mg/L	EPA 8270		08/21 08/2	
Benzo(g,h,i)Perylene	0.01	U	mg/L	EPA 8270		08/21 08/2	
Total Metals Analysis							
ICP Screen, ICF				<u>-</u> .			
Aluminum	0.10			EPA	n/a		
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/2	4 DFL
Arsenic	0.10	Ü	mg/L	EPA 6010		08/23 08/2	
Barium	0.10	U	mg/L	EPA 6010		08/23 08/2	
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/2	
Cadmium	0.050 0.050	IJ	mg/L	EPA 6010		08/23 08/2	
Calcium		U	mg/L	EPA 6010		08/23 08/2	
Chromium	21 0.050	ŗ ī	mg/L	EPA 6010		08/23 08/2	
Cobalt	0.050	U	mg/L	EPA 6010		08/23 08/2	
Copper	0.050	U U	mg/L	EPA 6010		08/23 08/2	
Iron	0.030	U	mg/L	EPA 6010		08/23 08/2	
Lead	0.10	U	mg/L	EPA 6010		08/23 08/2	
	0.10	U	mg/L	EPA 6010		08/23 08/2	4 DFL
	1					V-	





ENVIRONMENTAL LABORATORY SERVICES

REPORT OF ANALYSIS 5633 B STREET Chemlab Ref.# :93.4179-3 ANCHORAGE, AK 99518 Client Sample ID :BTR BKDG SW02 TEL: (907) 562-2343 FAX: (907) 561-5301 Matrix :WATER Magnesium 12 mg/L EPA 6010 08/23 08/24 DFI Manganese 0.050 U mq/L EPA 6010 08/23 08/24 DFI Molybdenum 0.050 U mg/L EPA 6010 08/23 08/24 DFI Nickel 0.050 U EPA 6010 08/23 08/24 mg/L DFI Potassium 5.0 U mg/L EPA 6010 08/23 08/24 DFI Selenium 0.10 U EPA 6010 mg/L 08/23 08/24 DFT Silver 0.050 U EPA 6010 08/23 08/24 mg/L DFI Sodium 08/23 08/24 EPA 6010 mg/L DFT Thallium 0.005 U EPA 7841 08/23 08/26 mq/L KAV Vanadium 0.050 U EPA 6010 mg/L 08/23 08/24 DFT Zinc 0.050 U EPA 6010 mg/L 08/23 08/24 DFI Dissolved Metals Analys ICP Screen, ICF EPA n/a Aluminum 0.10 EPA 6010 Ü mg/L 08/23 08/24 DFI Antimony 0.10 08/23 08/24 · DFI EPA 6010 U mg/L Arsenic 0.10 EPA 6010 U mq/L 08/23 08/24 DFI Barium 0.050 U EPA 6010 08/23 08/24 ma/L DFI Beryllium 0.050 U mq/L EPA 6010 08/23 08/24 DFL Cadmium 0.050 EPA 6010 08/23 08/24 mq/L DFL Calcium 08/23 08/24 21 EPA 6010 mg/L DFL Chromium 0.050 EPA 6010 08/23 08/24 U mg/L DFL Cobalt 0.10 EPA 6010 08/23 08/24 U mg/L T Copper 0.050 EPA 6010 08/23 08/24 mg/L Iron 0.36 EPA 6010 08/23 08/24 mg/L DFL Lead 0.10 U EPA 6010 08/23 08/24 mg/L Magnesium 13 EPA 6010 08/23 08/24 mg/L Manganese 0.050 EPA 6010 08/23 08/24 U mg/L DFL Molybdenum 0.050 U EPA 6010 08/23 08/24 mg/L DFL Nickel 0.050 EPA 6010 08/23 08/24 U mg/L DFL Potassium 5.0 U EPA 6010 08/23 08/24 mg/L DFL Selenium 0.10 mg/L EPA 6010 08/23 08/24 Ü DFL Silver 0.050 EPA 6010 08/23 08/24 mg/L DFL Sodium 5**7** EPA 6010 08/23 08/24 mg/L DFL Thallium **0.005** U mg/L EPA 7841 08/23 08/26 KAW Vanadium 0.050 U mg/L EPA 6010 08/23 08/24 DFL Zinc 0.050 U mg/L EPA 6010 08/23 08/24 DFL TOC, Nonpurgable EPA 9060 n/a ...TOC Range 11.0-15.5 mq/L EPA 9060 08/27 CMR ...TOC Concentration 12.7 EPA 9060 08/27 mg/L CMR Residue, Non-Filterable 3**0** U mg/L EPA 160.2 08/24 08/24 **GPP** Residue, Filterable (TDS) 352 U mg/L EPA 160.1 500 08/20 08/23 **RJK** 

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. LT = Less Than

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

GT = Greater Than



SGS Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above

ICF ID	BTR-BKGD-2SD03
F&BI Number	1746
Sample Type	soil
Date Received	9/3/93
% Dry Weight	21
Sequence Date	#6-09/05/93
Leaded Gas	,,
JP-4	< 240
Lube Oil	< 480
Diesel	< 240
Spike Level	
Unknown Semi-volatile	
Pentacosane	105
Sequence Date	
PCB 1221	
PCB 1232	
PCB 1016	
PCB 1242	
PCB 1248	
PCB 1254	
PCB 1260	
Spike Level	
Dibutyl Chlorendate	
Sequence Date	
alpha-BHC	
beta-BHC	
gamma-BHC	
delta-BHC	
Heptachlor	
Aldrin	
Heptachlor Epoxide	
Endosulfan I	
DDE	
Dieldrin	
Endrin	
Endosulfan II	
DDD	
Endrin Aldehyde	
DDT	
Endosulfan Sulfate Endrin Ketone	
Methoxy Chlor Chlordane	
Dibutyl Chlorendate	
Spike Level	
Vol Sequence	#1&2-09/06/93
CCI4	< 0.5 T
TCA	< 0.5 T
Benzene	< 0.1
TCE	<0.5 丁
Toluene	< 0.1
PCE	<0.5J
Ethylbenzene	< 0.1
Xylenes	< 0.2
Gasoline	<5 T
Spike level	

Gasoline Spike level BFB

Urlay

82

ANALYTICAL DATA SHEETS FOR QA/QC

ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

:93.4197-6

Client Sample ID :BTR SD08 AB©

Matrix

:WATER

Suf REPORT OF ANALYSIS

**5633 B STREET** ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS

Project# PWSID

:DEW LINE :BARTER :UA

RUSH Order

:69752 Report Completed :08/23/93

Collected :08/16/93 @ 15:00 hrs. :08/19/93 @ 18:45 hrs. Received

Technical Director: STEPHEN-C. EDE

Released By : Moll

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Halogenated Volatile Or				EPA 8010				
	<b>20.0098</b>	والمناجع المنافعة	mg/L	EPA 8010		08/20	08/20	SGM
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20		SGM
1,1 Dichloroethane	0.0010	_	mg/L	EPA 8010			08/20	SGM
Chloroform	0.0010		mg/L	EPA 8010			08/20	SGM
Carbontetrachloride	0.0010	_	mg/L	EPA 8010			08/20	SGM
1, 2 Dichloropropane	0.0010	Ŭ	mg/L	EPA 8010			08/20	SGM
Trichloroethylene	0.0010	Ū	mg/L	EPA 8010			08/20	SGM
1,1,2 Trichloroethane	0.0010		mg/L	EPA 8010			08/20	SGM
promochloromethane	0.0010		mg/L	EPA 8010		08/20	08/20	SGM
rachloroethylene	0.0010		mg/L	EPA 8010			08/20	SGM
Chlorobenzene	0.0010		mg/L	EPA 8010		08/20	08/20	SGM
Trichlorofluoromethane	0.0010		mg/L	EPA 8010			08/20	SGM
Trans12Dichloroethylene	0.0010		mg/L	EPA 8010			08/20	SGM
14.2 Dichloroethane	0.0012			EPA 8010			08/20	SGM
1,1,1 Trichoroethane	0.0010	Ü	mg/L	EPA 8010		08/20	08/20	SGM
Bromodichloromethane	0.0010		mg/L	EPA 8010			08/20	SGM
Trans1,3Dichloropropene	0.0010		mg/L	EPA 8010			08/20	SGM
cis-1,3-Dichloropropene	0.0010		mg/L	EPA 8010			08/20	SGM
Bromoform	0.0010		mg/L	EPA 8010		08/20	08/20	SGM
1122-Tetrachloroethane	0.0010		mg/L	EPA 8010		08/20	08/20	SGM
Chloromethane	0.0010		mg/L	EPA 8010		08/20	08/20	SGM
Bromoethane	0.0010		mg/L	EPA 8010		08/20	08/20	SGM
Vinyl Chloride	0.0010	ប	mg/L	EPA 8010		08/20	08/20	SGM
Chloroethane	0.0010	U	mg/L	EPA 8010			08/20	SGM
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010			08/20	SGM
2-Chloroethylvinylether	0.0010		mg/L	EPA 8010			08/20	SGM
1,3-Dichlorobenzene	0.0010		mg/L	EPA 8010			08/20	SGM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Aromatic Volatiles				EPA 8020				
Benzene	0.0010		mg/L	EPA 8020			08/20	SGM
Toluene			mg/L	EPA 8020			08/20	SGM
Ethylbenzene	0.0010		mg/L	EPA 8020			08/20	SGM
Chlorobenzene	0.0010		mg/L	EPA 8020			08/20	SGM
p & m Xylene	0.0010		mg/L	EPA 8020			08/20	SGM
o-Xylene	0.0010		mg/L	EPA 8020			08/20	SGM
1,4 Dichlorobenzene	0.0010		mg/L	EPA 8020			08/20	SGM
3 Dichlorobenzene	0.0010	U	mg/L	EPA 8020		08/20	08/20	SGM



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

1,2 Dichlorobenzene

:93.41**97**-6

Client Sample ID :BTR SD08 AB \$\varphi\$ |

Matrix

:WATER

REPORT OF ANALYSIS SUCK

0.0010 U

mg/L

EPA 8020

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

08/20 08/20

SGM

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



**955**- Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-9 Suf Client Sample ID :BTR SD08 AB 0 | 12.794 Matrix :WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

wall

Client Name

:ICF KAISER ENGINEERING

Ordered By :RAY MORRIS Project Name :DEW LINE Project# :BARTER PWSID :UA

WORK Order :69700 Report Completed :09/17/93

Collected :08/16/93 @ 15:00 hr: Received :08/19/93 @ 10:50 hr:

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA. ONE VIAL BROKEN ON ARRIVAL.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.0010	U	mg/L	EPA 8260		00/20	00/20	1577
	Bromobenzene	0.0010	Ü	mg/L	EPA 8260			08/20 08/20	KWI
	Bromochloromethane	0.0010	Ü	mg/L	EPA 8260				KWI
	Bromodichloromethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWI
	Bromoform	0.0010	Ü	mg/L	EPA 8260			08/20 08/20	KWI
	Bromomethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWI:
	n-Butylbenzene	0.0010	บั	mg/L	EPA 8260		08/20		
	sec-Butylbenzene	0.0010	Ū	mg/L	EPA 8260		08/20		KWE
	tert-Butylbenzne	0.0010	Ū	mg/L	EPA 8260		08/20		KWM KWM
V	Carbon Tetrachloride	0.0010	Ü	mg/L	EPA 8260		08/20		KMW
	Chlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	Chloroethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	Chloroform	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
	Chloromethane	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
	2-Chlorotoluene	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
	4-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	Dibromochloromethane	0.0010	Ū	mg/L	EPA 8260		08/20		
	12Dibromo3Chloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	1,2-Dibromoethane	0.0010	Ū	mg/L	EPA 8260		08/20		KWM KWM
	Dibromomethane	0.0010	Ū	ng/L	EPA 8260		08/20		
	1,2-Dichlorobenzene	0.0010	Ŭ	mg/L	EPA 8260		08/20		KWM
	1,3-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	1,4-Dichlorobenzene	0.0010	Ū	mg/L	EPA 8260		08/20		KWM KWM
	Dichlorodifluoromethane	0.0010	Ū	mg/L	EPA 8260		08/20		
	1,1-Dichloroethane	0.0010	Ū	mg/L	EPA 8260		08/20		KWM -
	1,2-Dichloroethane	0.0016	N. Control	ng/Land	EPA 8260		08/20		KWM
	1,1-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	cis-1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	trans1,2-Dichloroethene	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
	1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	1,1-Dichloropropene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	Ethylbenzene	0.0010	ប	mg/L	EPA 8260		08/20		KWM
	Hexachlorobutadiene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	Isopropylbenzene	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
	p-Isopropyltoluene	0.0010	Ū	mg/L	EPA 8260		08/20		KWM
	7			<b>J</b> ,	5255		UU/ 20	VU/ 20	UMU



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS 5633 B STREET Chemlab Ref.# :93.4173-9 ANCHORAGE, AK 99518 Client Sample ID :BTR SD68 AB Ø( 127.44 TEL: (907) 562-2343 FAX: (907) 561-5301 Matrix :WATER

Methylene Chloride	··0.011		mg/L	EPA	8260	08/20	08/20	KWI
Napthalene	0.0010	U	mg/L	EPA	8260	08/20	08/20	KWI
n-Propylbenzene	0.0010	U	mg/L	EPA	8260	08/20	08/20	KWI
Styrene	0.0010	U	mg/L	EPA	8260	08/20	08/20	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA	8260	08/20	08/20	KWI
1122-Tetrachloroethane	0.0010	บ	mq/L		8260	08/20	08/20	KWI
Tetrachloroethene	0.0010	U	mg/L		8260	08/20	08/20	KW
Toluene	0.0019		ang/L.		8260		08/20	KW
1,2,3-Trichlorobenzene	0.0010	U	mg/L		8260		08/20	KWI
1,2,4-Trichlorobenzene	0.0010	Ü	mg/L		8260		08/20	KW
1,1,1-Trichloroethane	0.0010	Ū	mg/L		8260		08/20	KWP
1,1,2-Trichloroethane	0.0010	Ū	ang/L		8260	•	08/20	KW
Trichloroethene	0.0010	Ū	mg/L		8260	•	08/20	KWI
Trichlorofluoromethane	0.0010	Ū	mg/L		8260		08/20	KWI
1,2,3-Trichloropropane	0.0010	Ū	mg/L		8260		08/20	KWI
1,2,4-Trimethylbenzene	0.0010	Ū	ng/L		8260		08/20	KWI
1,3,5-Trimethylbenzene	0.0010	Ü	mg/L		8260	-	08/20	KW
Vinyl Chloride	0.0010	Ü	mg/L		8260	,	08/20	KWI
p+m-Xylene	0.0010	Ü	mg/L		8260	_	08/20	KWP
o-Xylene	0.0010	Ü	mg/L		8260	-	08/20	KW

See Sample Remarks Above

D = Secondary dilution.

UA = Unavailable

NA = Not AnalyzedLT = Less Than

GT = Greater Than



See Special Instructions Above

U = Undetected, Reported value is the practical quantification limit.



ENVIRONMENTAL LABORATORY SERVICES

8ml 724

REPORT of ANALYSIS

5633 B STREET ANCHORAGE. AK 99518 TEL: (907) 562-2343

FAX (907) 561-5301

Client Sample ID :BTR-ABt02 Matrix

Chemlab Ref.#

:93.4303-1

:WATER

WORK Order Report Completed :70013

Client Name Ordered By Project Name

:ICF KAISER ENGINEERING :RAY MORRIS

Collected

:09/30/93 :08/21/93

@ 15:00 hr @ 12:00 hr

Project# PWSID

:DEW LINE :BARTER

:UA

Received

:08/24/93

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In <b>i</b>
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		00/02	09/02	KWI
Bromobenzene	0.0010	Ū	mg/L	EPA 8260			09/02	KWi
Bromochloromethane	0.0010	Ū	mg/L	EPA 8260			09/02	KWI
Bromodichloromethane	0.0010	U	mg/L	EPA 8260			09/02	KWI
Bromoform	0.0010	Ū	mg/L	EPA 8260			09/02	KWI
Bromomethane	0.0010	Ü	mg/L	EPA 8260			09/02	KWI
n-Butylbenzene	0.0010	Ũ	mg/L	EPA 8260			09/02	KWI
sec-Butylbenzene	0.0010	Ū	mg/L	EPA 8260			09/02	KWI
tert-Butylbenzne	0.0010	Ū	mg/L	EPA 8260		09/02		KWI
Carbon Tetrachloride	0.0010	Ū	mg/L	EPA 8260		09/02		
Chlorobenzene	0.0010	Ü	mg/L	EPA 8260		09/02		KWI Kwi
Chloroethane	0.0010	Ū	mg/L	EPA 8260		09/02		KWI
Chloroform	0.0010	Ū	mg/L	EPA 8260		09/02		KWI
Chloromethane	0.0051		"mg/L.»			09/02		KWr
2-Chiorotoluene	0.0010	Ü	mg/L	EPA 8260		09/02		KWI
4-Chlorotoluene	0.0010	Ū	mg/L	EPA 8260		09/02		KWL
Dibromochloromethane	0.0010	Ū	mg/L	EPA 8260		09/02		KWI
12Dibromo3Chloropropane	0.0010	Ū	mg/L	EPA 8260		09/02		KWE
1,2-Dibromoethane	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
Dibromomethane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
1,2-Dichlorobenzene	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
1,3-Dichlorobenzene	0.0010	Ū	mg/L	EPA 8260		09/02		KWM.
1,4-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
Dichlorodifluoromethane	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
1,1-Dichloroethane	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
1,2-Dichloroethane	0.0063	-, -	mg/L	* EPA 8260		09/02		KWM
r'r-promotoefueue	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
cis-1,2-Dichloroethene	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
trans1,2-Dichloroethene	0.0010	Ū	mg/L	EPA 8260		09/02		KWM
1,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,1-Dichloropropene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
Ethylbenzene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		09/02		KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02		KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 78260		09/02		KWM
₹	1			= · · · · = = -		- 5, 02	0 ) / 02	1/11/1



Chemlab Ref.#

p+m-Xylene

o-Xylene

#### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

0.0010 U

0.0010 U

:93.4303-1

REPORT of ANALYSIS

5533 B STR ANCHORAGE, AK 99518 TEL: (907) 562-2343

09/02 09/02

09/02 09/02

KWŁ.

KWM

Client Sample ID :BTR-ABt02 Matrix :WATER					T	EL: (907) 56 AX: (907) 56	2-2343
Methylene Chloride	0.0058	. *	mg/L	EPA 8260	09/02	09/02	KW:
Napthalene	0.0010	Ü	mg/L	EPA 8260	09/02	09/02	KW:
n-Propylbenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWi
Styrene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1112-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Tetrachloroethene	0.0010	U	mg/L	EPA 8260		09/02	KWI
Toluene	0.0022		mg/L	EPA 8260	09/02	09/02	KWI
1,2,3-Trichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	K₩≀
1,2,4-Trichlorobenzene	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
1,1,1-Trichloroethane	0.0010	U	mg/L	. EPA 8260		09/02	KW1
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI
Trichloroethene	0.0010	U	mg/L	EPA 8260		09/02	KWI
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8260	09/02		KWI
1,2,3-Trichloropropane	0.0010	U	mg/L	EPA 8260	09/02	09/02	KW1
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	09/02		KWI
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	09/02	09/02	KWI

mg/L

mg/L

EPA 8260

EPA 8260

See Sample Remarks Above ,

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

#### REPORT of ANALYSIS

Chemlab Ref.

193.4203-8

Client Sample ID :BTR SD08 SEB FB BFM N.8A4

5833 8 STREET ANCHORAGE, AX 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix

PWSID

WATER

Client Name

:ICF KAISER ENGINEERING RAY MORRIS

Ordered By Project Name Project*

DEN LINE

BARTER :UA

:69800 RUSH Order

Report Completed :08/30/93

@ 15:30 hr: :08/17/93 Collected 108/19/93 8 18:45 hr: Received

Technical Director: STEPHEN C. EDE

Released By :

FINAL RESULTS. Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND L.M.

Sample Remarks: SAMPLE COLLE	CTED BY:	n. L	WINCH WIT	· (UILO	Ufeer Con	muts	_	
<b></b>	Results	Oner Oc	Units	Method	Alowable Limits	Dxt. Date	Anal Date	Ini
Parameter	0.200	U	mg/L	3510/3550/8100M		08/21	08/22	JB
Hydrocarbons EPH	0020		_	EPA 8015M/8020		00/22	08/23	KX
VPH & BTEX Hydrocarbons VPH	0.020	บ	mg/L	EPA 5030/8015m				
Benzene	0.0010	Ü	mg/L	EPA 8020 EPA 8020		08/24	08/24 08/24	エル
Toluene	0.0010	บ บ	mg/L mg/L	EPA 8020		08/24	08/24	J J
Ethylbenzene	0.0010 0.0010		mg/L	EPA 8020		08/24	08/24 08/24	JI
p&m Xylene o-Xylene	0.0010		mg/L	EPA 8020		VO/ 27	00/24	<b>V.</b>
•				EPA 8010		09/24	08/24	Jī
Halogenated Volatile Or	0.0010	U	mg/L	EPA 8010			08/24	Jī
Methylene Chloride 1,1 Dichloroethylene	0.0010		mg/L	EPA 8010			08/24	Jī
1,1 Dichloroethane	0.0010		mg/L	EPA 8010 EPA 8010		08/24	08/24	J
Chloroform	0.001		ng/L ng/L	EPA 8010			08/24	J
Carbontetrachloride	0.001		mg/L	EPA 8010		08/24	1 08/24	Ji Ji
1. 2 Dichloropropane	0.001		mg/L	EPA 8010			4 08/24 4 08/24	J.
Trichloroethylene	0.001		mg/L	EPA 8010			4 08/24	J
1,1,2 Trichloroethane Dibromochioromethane	0.001		mg/L	EPA 8010			4 08/24	J
Tetrachloroethylene	0.001		mg/L	EPA 8010 EPA 8010		08/2	4 08/24	J
chlorobenzene	0.001		mg/L	EPA 8010			4 08/24	J
Trichiorofluoromethane	0.001		mg/L mg/L	EPA 8010 .	_ 1		4 08/24	J J
Transianichloroethylene	0.001 0.002		mg/L	EPA 8010/N)	-J.1		4 08/24 4 08/24	
1.2 Dichloroethane	0.001		mg/L	EPA 8010		08/2	4 08/24	
1,1,1 Trichoroethane Bromodichloromethane	0.001		ng/L	EPA 8010			4 08/24	J
Transi, 3Dichloropropene	0.001		mg/L	EPA 8010 EPA 8010		08/2	4 08/24	3
cis-1,3-Dichloropropene	0.001		ng/L	EPA 8010			4 08/24	J
Bronoform	0.00		ng/L ng/L				4 08/24	
1122-Tetrachloroethane	0.00			EPA 8010		08/2	24 08/24	
Chloromethane	0.00			EPA 8010		08/2	24 08/24 24 08/24	
Bronoethane	0.00			EPA 8010		08/	24 08/24	
Vinyl Chloride	0.00		mg/L	EPA 8010		08/	24 08/24	
Chloroethane 1,4 Dichlorobenzene	0.00					08/	24 08/24	į į
2-Chloroethylvinylether	0.00	10 U	mg/L	EPA 8010	4-94			
7-Office out a				3.	14 Jan			



PCB-1260

### COMMERCIAL TESTING & ENGINEERING CO.

ENVIRONMENTAL LABORATORY SERVICES

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Chemlab Ref.# :93.4203-	.a	REPU	ORT of AN	MALYSIS	5600 B STREET
Client Sample ID :BTR SD09	CED FOR				ANCHORAGE, AK 99518
Matrix :WATER	- COVI	BFM II	1.8.94		TEL. (907) 562-2343
·					FAX (907) 561-5301
1,3-Dichlorobenzene	0.0010	U	/		
1,2-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8010	08/24 08/24 JL
-	0.0010	U	mg/L	EPA 8010	08/24 08/24 JL
Organochlorine Pest				FD1 0000	
Aldrin	0.0001	U	mor /T	EPA 8080	
Alpha-BHC	0.0001	Ü	nag/L nag/L	EPA 8080	08/21 08/23 NR
Beta-BHC	0.0001	Ü	mg/L mg/L	EPA 8080	08/21 08/23 NRC
Delta-BHC	0.0001	บ	_	EPA 8080	08/21 08/23 NRC
Gamma-BHC	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 NRC
Chlordane	0.001	-	mg/L	EPA 8080	08/21 08/23 NRC
4,4'-DDD	0.0001	U	mg/L	EPA 8080	08/21 08/23 NR(
4,4'-DDE		Ŭ	ng/L	EPA 8080	08/21 08/23 NR(
4,4'-DOT	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 NRC
Dieldrin	0.0001	U	mg/L	EPA 8080	08/21 08/23 NRC
Endosulfan I	0.0001	U	mg/L	EPA 8080	08/21 08/23 NRC
Endosulfan II	0.0001	U	mg/L	EPA 8080	08/21 08/23 NRC
Endosulfan Sulfate	0.0001	U	mg/L	EPA 8080	08/21 08/23 NRC
Endrin	0.0001	U	mg/L	EPA 8080	08/21 08/23 NRC
Endrin Aldehyde	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 NRC
Heptachlor	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 NRC
Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080	08/21 08/23 NRC
Methoxychlor	0.0001	Ü	mg/L	EPA 8080	08/21 08/23 _NRC
Toxaphene	0.0001	U	ng/L	EPA 8080	08/21 08/23 RC
PCB-1016	0.001	Ü	mg/L	EPA 8080	08/21 08/23 TRC
PCB-1221	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
PCB-1232	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
PCB-1232 PCB-1242	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
PCB-1242 PCB-1248	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
PCB-1254	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
PCB-1254 PCB-1260	0.001	U	mg/L	EPA 8080	08/21 08/23 NRC
1 CD-1200	0 001	11	m~ /T	ETC 1 0 0 0 0	00 (01 00 (00

mg/L

EPA 8080

0.001 U

UA = Unavailable

NA = Not AnalyzedLT = Less Than

08/21 08/23

NRC

GT = Greater Than



See Special Instructions Above

^{**} See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.#

:93.4175-3

:RAY MORRIS

:DEW LINE

Client Sample ID :BTR SDOB SEB EBOI 6FM 11.7.94

:ICF KAISER ENGINEERING

:WATER Matrix

> :69705 WORK Order

Report Completed :09/20/93 :08/17/93 @ 15:30 hr Collected :08/19/93 @ 10:50 hr Received

5633 B STREET ANCHORAGE, AK 99518

TEL: (907) 562-2343 FAX: (907) 561-5301

Technical Director: STEPHEN, C. EDE

Released By :

Client Name Ordered By

Project Name Project# PWSID

:BARTER :UA

Sample Remarks: SAMPLE COLLECTED BY: PETE, JERRY M., AND M. LEMMON.

Parameter	Results	QC Qual	Units	2y Whethod	Allowable Limits	Ext. Date	Anal Date	Ini [.]
**************************************			turp	ON EPA 826	 N			
Volatile Organics	0.0010	บ	m / 1	KILEPA 826	n N	08/20	08/20	KW:
Benzene	0.0010	·ū	ng/L (	EPA 826	n n	08/20		KWI
Bromobenzene	0.0010	Ü	mg/L	EPA 826		08/20		KWI
Bromochloromethane	0.0010	Ü		EPA 826		08/20		KWI
Bromodichloromethane	0.0010	บ	mg/L mg/L	EPA 826		08/20		KWI
Bromoform	0.0010	บ		EPA 826		08/20		KWI
Bromomethane	0.0010	Ü	mg/L	EPA 826			08/20	KW
n-Butylbenzene	0.0010	Ü	mg/L	EPA 826			08/20	KWI
sec-Butylbenzene	0.0010	_	mg/L	EPA 826			08/20	KWI
tert-Butylbenzne	0.0010		mg/L	EPA 826			08/20	KWI
Carbon Tetrachloride	0.0010		mg/L	EPA 826			08/20	KWI
Chlorobenzene			ng/L	EPA 826			08/20	KWI
Chloroethane	0.0010		mg/L	EPA 826		08/20	08/20	KWR
Chloroform	0.0010		ing/L	EPA 826			08/20	KWI
Chloromethane	0.0010		mg/L	EPA 826			08/20	KWI
2-Chlorotoluene	0.0010		mg/L				08/20	KWI
4-Chlorotoluene	0.0010		mg/L	EPA 826			08/20	KWI
Dibromochloromethane	0.0010		mg/L	EPA 826			08/20	KWI
12Dibromo3Chloropropane	0.0010		mg/L	EPA 826				KWI
1,2-Dibromoethane	0.0010		mg/L	EPA 826			08/20	KM
Dibromomethane	0.0010		mg/L	EPA 826			08/20	
1,2-Dichlorobenzene	0.0010		mg/L	EPA 826			08/20	KWI
1,3-Dichlorobenzene	0.0010		mg/L	EPA 826			08/20	KWI
1.4-Dichlorobenzene	0.0010		mg/L \	EPA 826			08/20	KWI
Dichlorodifluoromethane	0.0010		mg/L	EPA 826			08/20	KMI
1.1-Dichloroethane	0.0010		mg/L	EPA 826			08/20	KWI
1,2-Dichloroethane	0.0044	l .	mg/L \	EPA 826			08/20	KWI
1,1-Dichloroethene	0.0010	U	mg/L	EPA 820	60		08/20	KWI
cis-1,2-Dichloroethene	0.0010	บ (	mg/L	EPA 820			08/20	KWI
trans1,2-Dichloroethene	0.0010	) บ	mg/L	EPA 82	60		08/20	KWI
1,2-Dichloropropane	0.0010	) บ	mg/L	EPA 82			08/20	KW)
1,3-Dichloropropane	0.0010	) บ	mg/L	EPA 82	60		08/20	KW
2,2-Dichloropropane	0.0010	<b>U</b>	mg/L	EPA 82	60		08/20	KWI
1,1-Dichloropropene	0.0010		mg/L	EPA 82	60		08/20	KW
Ethylbenzene	0.001		mg/L	EPA 82	60		08/20	KW
Hexachlorobutadiene	0.001		mg/L	EPA 82			08/20	KM
Isopropylbenzene	0.001		mg/L	/ EPA 82		08/20	08/20	KW
p-Isopropyltoluene	0.001		mg/L	VEPA 82		08/20	08/20	KW
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Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

	EMAINOWMENTAL					_
5:5:28 9C8		F	EPO	RT of ANAL	YSIS	
Chemlab Ref.# Client Sample Matrix	:93.4175-3 ID :BTR S <del>D08 SI</del> :WATER	EB EBØI	BFN	1 11.7.94	comment	
Methylene Ch Napthalene n-Propylbenz Styrene 1112-Tetrach 1122-Tetrach Tetrachloroe Toluene 1,2,3-Trichl 1,1,1-Trichl 1,1,2-Trichl Trichloroetl Trichloroetl Trichloroflu 1,2,4-Trime 1,2,4-Trime 1,3,5-Trime Vinyl Chlor p+m-Xylene	aloroethane aloroethane ethene Lorobenzene Loroethane loroethane loroethane loromethane loropropane thylbenzene thylbenzene	0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010	טטטטטטטטטטטטטטטטטטטטטט	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260	
o-Xylene	•	-		•		

n-Propylbenzene	0.0010 0	mg/L	EPA 8260	
Styrene	0.0010 U	mg/L	EPA 8260	
1112-Tetrachloroethane	0.0010 U	mg/L	EPA 8260	
1122-Tetrachloroethane	0.0010 U	mg/L	EPA 8260	
Tetrachloroethene	0.0010 U	mg/L	EPA 8260	
Toluene	0.0010 U	mg/L	EPA 8260	
1.2.3-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	
1.2.4-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	
1.1.1-Trichloroethane	0.0010 U	mg/L	EPA 8260	
1.1.2-Trichloroethane	0.0010 U	mg/L\	EPA 8260	
Trichloroethene	0.0010 U	mg/L	EPA 8260	
Trichlorofluoromethane	0.0010 U	mg/L	EPA 8260	
1.2.3-Trichloropropane	0.0010 U	mg/L	EPA 8260	
1.2.4-Trimethylbenzene	0.0010 U	mg/L	EPA 8260	
1,3,5-Trimethylbenzene	0.0010 U	mg/L	EPA 8260	
Vinyl Chloride	0.0010 U	mg/L	EPA 8260	
p+m-Xylene	0.0010 U 0.0010 U	mg/L mg/L	VEPA 8260	
o-Xylene	0.0010 U	ma/r V	VIII OLUU	
			EPA 8270	
Semivolatile Organics	0.01 U	mg/L	EPA 8270	
Phenol	0.01 U		EPA 8270	
bis(2-Chloroethyl)ether	0.01 U		EPA 8270	
2-Chlorophenol	0.01 U	_	EPA 8270	
1,3-Dichlorobenzene 1,4-Dichlorobenzene	0.01 U		EPA 8270	
1,4-Dichiolobelizeric	0.01 U	mg/L	EPA 8270	
Benzyl Alcohol 1,2-Dichlorobenzene	0.01 U		EPA 8270	
2-Methylphenol	0.01 U	mg/L	EPA 8270	
bis(2-Chloroisopropyl)e	0.01 U	mg/L	EPA 8270	
4-Methylphenol	0.01 U	mg/L	EPA 8270	
n-Nitroso-di-n-Propylam	0.01 U	i mg/L	EPA 8270	
Hexachloroethane	0.01 U		EPA 8270	
Nitrobenzene	0.01		EPA 8270	
Isophorone	0.01 U	_	EPA 8270	
2-Nitrophenol	0.01 (		EPA 8270	
2,4-Dimethylphenol	0.01 (		EPA 8270 EPA 8270	
Renzoic Acid	0.01		EPA 8270	
his(2-Chloroethoxy)Meth	0.01 (		EPA 8270	
2.4-Dichlorophenol	0.01		EPA 8270	
1,2,4-Trichlorobenzene	0.01		EPA 8270	
Naphthalene	_	J mg/L	EPA 8270	
4-chloroaniline	•	u mg/L	EPA 8270	
Hexachlorobutadiene		U mg/L	EPA 8270	

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08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21 08/21	08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23 08/23	HI HI HI HI HI HI HI HI HI HI HI HI HI H

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Hexachlorobutadiene

2-Methylnaphthalene

4-Chloro-3-Methylphenol

Hexachlorocyclopentadie

2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

2-Chloronaphthalene

EPA 8270

**EPA** 8270

**EPA** 8270

**EPA** 8270

EPA 8270

**EPA** 8270



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

\$ % 1E   908	REPORT of A	NALYSIS		B STREET
hemlab Ref.# :93.4175-3	EBØI VALIDA	TOW QUALIFIER	ANCHORAG TEL: (9	E. AK 99518 07) 562-2343
Client Sample ID :BTR SD08 SI	20. ~ VIII.	NEWT)		07) 561-5301
Matrix :WATER	1	<b>124.</b> )		
	W		08/21 08/	'23 HI
2-Nitroaniline	0.01 U mg/L	EPA 8270	08/21 08/	
Dimethylphthalate	0.01 U mg/L	EPA 8270	08/21 08/	
Acenaphthylene	0.01 U mg/L	EPA 8270		
2,6-Dinitrotoluene	0.01 U mg/L	EPA 8270	08/21 08/	
3-Nitroaniline	0.01 U mg/L	EPA 8270	08/21 08/	
Acenaphthene	0.01 U mg/L	EPA 8270	08/21 08/	
2,4-Dinitrophenol	0.01 U mg/L	EPA 8270	08/21 08/	
4-Nitrophenol	0.01 U mg/L	EPA 8270	08/21 08/	
Dibenzofuran	0.01 U mg/L	EPA 8270	08/21 08/	
2,4-Dinitrotoluene	0.01 U mg/L	EPA 8270	08/21 08/	
Diethylphthalate	0.01 U mg/L	EPA 8270	08/21 08/	
4-Chlorophenyl-Phenylet	0.01 U mg/L	EPA 8270	08/21 08	
Fluorene	0.01 U mg/L	EPA 8270	08/21 08/	
4-Nitroaniline	0.01 U mg/L	EPA 8270	08/21 08	
4,6-Dinitro-2-Methylphe	0.01 U mg/L	EPA 8270	08/21 08	
n-Nitrosodiphenylamine	0.01 U mg/L	EPA 8270	08/21 08	
4-Bromophenyl-Phenyleth	0.01 U mg/L	EPA 8270	08/21 08	
Hexachlorobenzene	0.01 U mg/L	EPA 8270	08/21 08	
Pentachlorophenol	0.01 U mg/L	EPA 8270	08/21 08	
Phenanthrene	0.01 U mg/L	EPA 8270	08/21 08	
Anthracene	0.01 U mg/L	. EPA 8270	08/21 08	
di-n-Butylphthalate	0.01 U mg/L	. EPA 8270	08/21 08	
Fluoranthene	0.01 U mg/L	. EPA 8270	08/21 08	
Pyrene	0.01 U mg/L	. EPA 8270	08/21 08	
Butylbenzylphthalate	0.01 U mg/L	. EPA 8270	08/21 08	
3.3-Dichlorobenzidine	0.01 Us(D)mg/I	_ EPA 8270	08/21 08	
Benzo(a)Anthracene	0.01 U mg/I	_ EPA 8270	08/21 08	
Chrysene	0.01 U mg/I	_ EPA 8270	08/21 08	
bis(2-Ethylhexyl)Phthal	0.01 U mg/I		08/21 08	
di-n-Octylphthalate	0.01 U mg/I		08/21 08	
Benzo(b)Fluoranthene	0.01 U mg/I	EPA 8270	08/21 08	
Benzo(k)Fluoranthene	0.01 U mg/l	EPA 8270	08/21 08	
Benzo(a)Pyrene	0.01 U mg/l		08/21 08	
Indeno(1,2,3-cd)Pyrene	0.01 U mg/		08/21 08	
Dibenz(a,h)Anthracene	0.01 II mg/	r. FPA 8270	08/21 08	
Benzo(g,h,i)Perylene	0.01 U J(D)mg/	L EPA 8270	08/21 08	3/23 M
Benzo(g,n, 1)1 eryrene	0.02	-,		
Total Metals Analysis		-		
ICP Screen, ICF		EPA	n/a	
Aluminum	0.10 U mg/	L EPA 6010	08/23 0	
Antimony	0.10 U mg/		08/23 0	
Arsenic	0.10 U mg/		08/23 0	
Barium	0.050 U mg/		08/23 0	B/24 C
Beryllium	0.050 U mg/		08/23 0	B/24 [
Cadmium	0.050 U mg/		08/23 0	
Calcium	0.20 U mg/	4545	08/23 0	8/24 I
	0.050 U mg/		08/23 0	
Chromium Cobalt	0.10 U mg/		08/23 0	
	0.050 U mg/		08/23 0	
Copper	0.10 U mg/		08/23 0	
Iron	13 0.10 U mg/		08/23 0	8/24 I
Lead				





**ENVIRONMENTAL LABORATORY SERVICES** 

5.NCE 908		REPORT	of ANA	LYSIS				5633 B S	DEE
Chemlab Ref.# :93.4175	5-3	uk.					ANCH	IORAGE, AK	
Client Sample ID :BTR SD6	8 SEB EPPI	110						EL: (907) 56	
Matrix :WATER		12.7.44					F	AX: (907) 56	1-530
Magnesium	0.20	U	mg/L	EPA	6010		08/23	08/24	D:
Manganese	0.050	U	mg/L	EPA	6010		08/23	08/24	Di
Molybdenum	0.050	Ü	mg/L	EPA	6010		08/23		Di
Nickel	0.050	ប	mg/L		6010		08/23	08/24	DI
Potassium	5.0	ប	mg/L	EPA	6010		08/23		DI
Selenium	0.10	U	mg/L		6010		08/23		DI
Silver	0.050	Ü	mg/L		6010		08/23	08/24	DI
Sodium	0.25	U	mg/L		6010		08/23	08/24	DE
Thallium	0.0050	U	mg/L		7841		08/23	08/26	K
Vanadium	0.050	U	mg/L		6010				DE
Zinc	0.050	U	mg/L		6010		08/23	08/24	Dŧ
TOC, Nonpurgable				EPA	9060	n/a			
TOC Range	6.2-10.2		mg/L	EPA	9060	• -		08/31	Cł
TOC Concentration	7.8		ma/L		9060			08/31	Cì

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailab

NA = Not Analyzed LT = Less Than

GT = Greater Than



See Special Instructions Above

^{**} See Sample Remarks Above,

**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

ab Ref.#

:93.4206-4

Client Sample ID :BTR SD08 WEB EB02 SWF

Matrix

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

@ 16:00 hrs.

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS

Project Name Project# PWSID

:DEW LINE :BARTER

:UA

RUSH Order

:69806

Report Completed :08/26/93 Collected

:08/17/93 Received

:08/19/93 @ 18:45 hrs.

Technical Director: STEPHEN Released By :

Sample Remarks: SAMPLE COLLECTED BY: PETE M.G., AND M.L. FINAL RESULTS.

Parameter	Results	QC Oual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Hydrocarbons EPH	0.100	U	mg/L	3510/3550/8100M		08/22	08/23	JBH
עסט כ סייביע				CON 001EW (0020				
VPH & BTEX Hydrocarbons VPH	0.020	U	ma /I	EPA 8015M/8020 EPA 5030/8015m		00.722	00.400	
nydrocarbons ven	0.020	U	mg/L	FLY 2020/0012W		08/22	08/22	KWM
Benzene	0.0010	U	mg/L	EPA 8020		08/22	08/22	JLB
Toluene	0.0010	Ü	mg/L	EPA 8020			08/22	JLB
Ethylbenzene	0.0010	Ū	mg/L	EPA 8020		08/22	08/22	JLB
p&m Xylene	0.0010	Ū	mg/L	EPA 8020		08/22	08/22	JLB
o-Xylene	0.0010	Ū	mg/L	EPA 8020		08/22	08/22	JLB
			<b>5.</b> -			,	00, 22	حبت
genated Volatile Or				EPA 8010				
the schloride	-0:0011	e year				08/22	08/22	JLB
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010			08/22	JLB
1,1 Dichloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Chloroform	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010			08/22	JLB
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Dibromochloromethane	0.0010	U	mg/L	EPA 8010			08/22	JLB
Tetrachloroethylene	0.0010	U	mg/L	EPA 8010			08/22	JLB
Chlorobenzene	0.0010	U	mg/L	EPA 8010			08/22	JLB
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
1 Programme Towns	- 0.0029	TT Sen	ng/L	EPA 8010		08/22		JLB
1,1,1 Trichoroethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Bromodichloromethane	0.0010	U	mg/L	EPA 8010		08/22		JLB
Trans1,3Dichloropropene	0.0010	U	mg/L	EPA 8010		08/22		JLB
cis-1,3-Dichloropropene	0.0010	ប	mg/L	EPA 8010		08/22		JLB
Bromoform	0.0010	U	mg/L	EPA 8010		08/22		JLB
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010		08/22		JLB
Chloromethane	0.0010	U	mg/L	EPA 8010		08/22		JLB
Bromoethane	0.0010	U	mg/L	EPA 8010		08/22	08/22	JLB
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/22		JLB
Chloroethane	0.0010	U	mg/L	EPA 8010		08/22		JLB
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/22		JLB
2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010		08/22		JLB
			_	_			,	~ <del></del>



ENVIRONMENTAL LABORATORY SERVICES

5-NGE 1908		REPORT	of	ANALYSIS XC		5600 B 63	rocet C
Chemlab Ref.# :93.4206- Client Sample ID :BTR SDO Matrix :WATER	<b>A</b>	974t		•	τ	5633 B ST ORAGE, AK EL: (907) 56 AX: (907) 56	99518 2-2343
1,3-Dichlorobenzene 1,2-Dichlorobenzene	0.0010 0.0010		mg/[ mg/[		08/22 08/22		JLB JLB
1,2-bichtorobenzene	0.0010	Ų į	11197 L	LA COIO	00, 22	00,22	· ·
Organochlorine Pest				EPA 8080			
Aldrin	0.0001		mg/[		08/21		NRC
Alpha-BHC	0.0001		mg/[		08/21		NRC
Beta-BHC	0.0001		mg/[		08/21		NRC
Delta-BHC	0.0001		mg/[		08/21		NRC
Gamma-BHC	0.0001		mg/I		08/21		NRC
Chlordane	0.001		mg/[		08/21		NRC
4,4'-DDD	0.0001		mg/I		08/21		NRC
4,4'-DDE	0.0001		mg/[		08/21		NRC
4,4'-DDT	0.0001	U	mg/[		08/21		NRC
Dieldrin	0.0001	U	mg/[		08/21		NRC
Endosulfan I	0.0001	U	mg/I		08/21		NRC
Endosulfan II	0.0001	Ü	mg/I	_ EPA 8080	08/21		NRC
Endosulfan Sulfate	0.0001	U	mg/i		08/21		NRC
Endrin	0.0001	U	mg/I		08/21		NRC
Endrin Aldehyde	0.0001	U	mg/I	L EPA 8080	08/21		NRC
Heptachlor	0.0001	U	mg/1		08/21		NRC
Heptachlor Epoxide	0.0001	Ü	mg/l		08/21		NRC
Methoxychlor	0.0001	U	mg/i			08/23	NRC
Toxaphene	0.001	U	mg/l	L EPA 8080		08/23	NRO
PCB-1016	0.001	U	mg/	EPA 8080		08/23	NR
PCB-1221	0.001	U	mg/		·	08/23	NRC
PCB-1232	0.001	U	mg/			08/23	NRC
PCB-1242	0.001	U	mg/	C EPA 8080		08/23	NRC
PCB-1248	0.001	U	mg/			08/23	NRC
PCB-1254	0.001	U	mg/			08/23	NRC
PCB-1260	0.001	U	mg/	L EPA 8080	08/21	08/23	NRC

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4179-1

Client Sample ID :BTR SDOS WEB E602

Matrix :WATER

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

:RAY MORRIS :DEW LINE :BARTER

**PWSID** :UA REPORT of ANALYSIS

BFM 11.7.94

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

WORK Order :69712

Report Completed :09/20/93 Collected

:08/17/93 @ 16:00 hr Received :08/19/93 @ 10:50 hr

Technical Director: STEPHEN C. EDE Released By : XXXII

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini
	Volatile Organics				EPA 8260				
	Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20 .	1213
	Bromobenzene	0.0010	U	mg/L	EPA 8260			08/20	KW KW
	Bromochloromethane	0.0010	U	mg/L	EPA 8260			08/20	KM.
	Bromodichloromethane	0.0010	U	mg/L	EPA 8260		00/20	08/20	
	Bromoform	0.0010	U	mg/L	EPA 8260			08/20	KW:
	Bromomethane	0.0010	U	mg/L	EPA 8260			08/20	KW.
	n-Butylbenzene	0.0010	U	mg/L	EPA 8260			08/20	KW
	sec-Butylbenzene	0.0010	U	mg/L	EPA 8260			08/20	KW
	tert-Butylbenzne	0.0010	U	mg/L	EPA 8260			08/20	KWI
_	Carbon Tetrachloride	0.0010	ប	mg/L	EPA 8260				KW!
	Chlorobenzene	0.0010	Ü	mg/L	EPA 8260			08/20	KWI
	Chloroethane	0.0010	Ū	mg/L	EPA 8260			08/20 08/20	KWI
	Chloroform	0.0010	Ū	mg/L	EPA 8260				KWI
	Chloromethane	0.0010	Ū	mg/L	EPA 8260			08/20	KWI
	2-Chlorotoluene	0.0010	Ŭ	mg/L	EPA 8260			08/20	KWI
	4-Chlorotoluene	0.0010	Ū	mg/L	EPA 8260			08/20	KWI
	Dibromochloromethane	0.0010	Ü	mg/L	EPA 8260			08/20	KWI
	12Dibromo3Chloropropane	0.0010	บั	mg/L	EPA 8260		08/20		KWI
	1,2-Dibromoethane	0.0010	ŭ	mg/L			08/20		KWI
	Dibromomethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWI
	1,2-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KW
	1,3-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KWI
	1,4-Dichlorobenzene	0.0010	บั	mg/L	EPA 8260		08/20		KWI
	Dichlorodifluoromethane	0.0010	Ü		EPA 8260		08/20		KWI
	1,1-Dichloroethane	0.0010	Ü	mg/L mg/L	EPA 8260		08/20		KW
	2-Dichloroethane	0 - 0010 0 - 0030		™g/L ™g/L /	EPA 8260		08/20		KWI
	1,1-Dichloroethene	0.0010	n'édamen.	mg/L.≱			08/20		KWI
	cis-1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/20		KWI
	trans1,2-Dichloroethene	0.0010	Ü	_	EPA 8260		08/20		KWI
	1,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWI
	1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWE
	2,2-Dichloropropane	0.0010	บ	mg/L	EPA 8260		08/20		KWI
	1,1-Dichloropropene	0.0010	ช	mg/L	EPA 8260		08/20		KWM
	Ethylbenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KWE
	Hexachlorobutadiene	0.0010	Ü	mg/L	EPA 8260		08/20		KWE
	Isopropylbenzene	0.0010	บ	mg/L	EPA 8260		08/20		KWE
	p-Isopropyltoluene	10.0010	U	mg/L	EPA 8260		08/20		KWM
	·	10.0010	U	mg/L	EPA 8260	•	08/20	08/20	KWM



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS SECT

Chemlab Ref.# :93.4179-1 Chemian Ker.# :73.41.7-1 Client Sample ID :BTR SD08 WEB 6802 8FM 11-7-44

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix	:WATER		BFM 11.7	નપ			F	FAX: (907) 5	61-5301
	To Selection								
Methylene	Chloride ""	0.0013	· . 1455	mg/L 🐲	EPA 8	B2 <b>60</b>	08/20	08/20	KW
Napthalene		0.0010	U	mg/L	EPA 8			08/20	KW
n-Propylbe	nzene	0.0010	U	mg/L	EPA 8			08/20	KW
Styrene		0.0010	U	mg/L	EPA 8			08/20	KW
	chloroethane	0.0010	U	mg/L	EPA 8			08/20	KW
	chloroethane	0.0010	ប	mg/L	EPA 8			08/20	KW.
Tetrachlor	oethene	0.0010	U	mg/L	EPA 8			08/20	KW:
Toluene		0.0010	U	mg/L	EPA 8			08/20	KW:
1,2,3-Trick	hlorobenzene	0.0010	U	mg/L	EPA 8			08/20	KW
1,2,4-Trick	nlorobenzene	0.0010	U	mg/L	EPA 8			08/20	KW
	nloroethane	0.0010	U	mg/L	EPA 8			08/20	KWI
1,1,2-Trich	nloroethane	0.0010	U	mg/L	EPA 8			08/20	KWI
Trichloroet	thene	0.0010	U	mg/L	EPA 8			08/20	KWI
Trichlorof:	luoromethane	0.0010	U	mg/L	EPA 8			08/20	
1,2,3-Trich	nloropropane	0.0010	U	mg/L	EPA 8			08/20	KWI
1,2,4-Trime	ethylbenzene	0.0010	Ū	mg/L	EPA 8				KWI
1,3,5-Trime	ethylbenzene	0.0010	Ū	mg/L	EPA 8			08/20	· KWI
Vinyl Chlor		0.0010	Ū	mg/L	EPA 8			08/20	KWI
p+m-Xylene		0.0010	บั	mg/L	EPA 8			08/20	KWI
o-Xylene		0.0010	Ŭ	mg/L	EPA 8			08/20	KWI
-			J	9/ L	LLA C	200	06/20	08/20	KWI
Semivolati]	le Organics	•			EPA 8	3270			_
Phenol		0.011	U	mg/L	EPA 8		08/21	08/23	
bis(2-Chlor	coethyl)ether	0.011	U	mg/L	EPA 8			08/23	
2-Chlorophe	enol	0.011	Ū	mg/L	EPA 8		08/21		HIT
1,3-Dichlor	obenzene	0.011	Ū	mg/L	EPA 8		08/21		MTT
1,4-Dichlor		0.011	Ū	ng/L	EPA 8		08/21		MT
Benzyl Alco		0.011	Ū	mg/L	EPA 8				MTT
1,2-Dichlor	obenzene	0.011	Ŭ	mg/L	EPA 8		08/21		MT
2-Methylphe	enol	0.011	Ū	mg/L	EPA 8		08/21		MTT
bis(2-Chlor	roisopropyl)e	0.011	Ü	mg/L	EPA 8		08/21 08/21		MIT
4-Methylphe	enol	0.011	Ū	mg/L	EPA 8				MTT
	li-n-Propylam	0.011	Ū	mg/L	EPA 8		08/21 08/21		MTI
Hexachloroe	thane	0.011	Ü	mg/L	EPA 8				MTT
Nitrobenzen		0.011	Ü	mg/L	EPA 8		08/21 08/21		MTI
Isophorone		0.011	์ บ	mg/L	EPA 8		08/21		MTT
2-Nitrophen	ol	0.011	Ū	mg/L	EPA 8		08/21		MTI
2,4-Dimethy	lphenol	0.011	Ü	mg/L	EPA 8		08/21		MTT
Benzoic Aci			Ū	mg/L	EPA 8				HTT
bis(2-Chlor	oethoxy)Meth	0.011	Ŭ	mg/L	EPA 8		08/21		MTT
2,4-Dichlor		0.011	Ü	mg/L	EPA 8		08/21		MTT
	lorobenzene	0.011	บั	mg/L	EPA 8		08/21		MTT
Naphthalene		0.011	Ü	mg/L	EPA 8		08/21		MTT
4-Chloroani		0.011	บ	mg/L			08/21		MTT
Hexachlorob		0.011	Ŭ		EPA 8		08/21		MTT
	Methylphenol	0.011	Ü	mg/L	EPA 8		08/21		MTT
2-Methylnap		0.011	Ü	mg/L	EPA 8		08/21		MTT
Hexachloroc	yclopentadie	0.011	Ü	mg/L	EPA 8		08/21		HTT
2,4,6-Trich		0.011		mg/L	EPA 8		08/21		MTT
2,4,5-Trich		0.011	U	mg/L	EPA 8		08/21		HTT
2-Chloronap		0.011	U U	mg/L	EPA 8		08/21		T
- 0zoronap		0.011	U	mg/L	EPA 8	210	08/21	08/23	T
							_		

## COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

3 406 908	DEDY	NOT OF BALL	ALVETO CACC	
Chemlab Ref.# :93.4179-1	REP	ORI OF ANA	ALYSIS XXX	5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2340 FAX: (907) 561-5301
Client Sample ID :BTR SD08 WEE	e EBØZ B	FM v.3.94	1 + i = 2i	TEL: (907) 562-2343
Matrix :WATER		1174 1174	milled the	FAX: (907) 561-5301
naci ix				
2-Nitroaniline	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Dimethylphthalate	0.011 U	mg/L	EPA 8270	08/21 08/23 M3
Acenaphthylene	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
2.6-Dinitrotoluene	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
3-Nitroaniline	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Acenaphthene	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
2,4-Dinitrophenol	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
4-Nitrophenol	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Dibenzofuran	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
2,4-Dinitrotoluene	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Diethylphthalate	0.011 U	mg/L	EPA 8270	08/21 08/23 MI
4-Chlorophenyl-Phenylet	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Fluorene	0.011 U	mg/L	EPA 8270	08/21 08/23 <b>h</b> 7
4-Nitroaniline	0.011 U	mg/L	EPA 8270	08/21 08/23 M1
4,6-Dinitro-2-Methylphe	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
n-Nitrosodiphenylamine	0.011 U	mg/L	EPA 8270	08/21 08/23 . M1
4-Bromophenyl-Phenyleth	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Hexachlorobenzene	0.011 U	mg/L	EPA 8270	08/21 08/23 M7
Pentachlorophenol	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Phenanthrene	0.011 U	mg/L	EPA 8270	08/21 08/23 M ²
Anthracene	0.011 U	mg/L	EPA 8270	08/21 08/23 M
di-n-Butylphthalate	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Fluoranthene	0.011 U	mg/L	EPA 8270	08/21 08/23 M
Pyrene	0.011 U	mg/L	EPA 8270	08/21 08/23 M
Butylbenzylphthalate	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
3,3-Dichlorobenzidine	0.011 U	mg/L	EPA 8270 (J) PA	08/21 08/23 M
Benzo(a)Anthracene	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Chrysene	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
bis(2-Ethylhexyl)Phthal	0.011 U	mg/L	EPA 8270	08/21-08/23 M
di-n-Octylphthalate	0.011 U	mg/L	EPA 8270	08/21 08/23 HT
Benzo(b)Fluoranthene	0.011 U	mg/L	EPA 8270	08/21 08/23 In
Benzo(k)Fluoranthene	0.011 U	mg/L	EPA 8270	08/21 08/23 HT
Benzo(a)Pyrene	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Indeno(1,2,3-cd)Pyrene	0.011 U	mg/L	EPA 8270	08/21 08/23 HT
Dibenz(a,h)Anthracene	0.011 U	mg/L	EPA 8270	08/21 08/23 MT
Benzo(g,h,i)Perylene	0.011 U	mg/L	EPA 8270 (5)-D.1	08/21 08/23 MT
M-4-3 M-4-1- N-3-2-2-				
Total Metals Analysis				
ICP Screen, ICF	0 10 11	17	EPA n/a	00/02 00/04 5:
Aluminum	0.10 U	mg/L	EPA 6010	08/23 08/24 Di
Antimony	0.10 U	mg/L	EPA 6010	08/23 08/24 DI
Arsenic Barium	0.10 U	mg/L	EPA 6010	08/23 08/24 Di
Beryllium	0.050 ປ 0.050 ປ	mg/L	EPA 6010	08/23 08/24 Di
Cadmium	0.050 ປ 0.050 ປ	mg/L	EPA 6010	08/23 08/24 DI 08/23 08/24 DI
Calcium		ng/L	EPA 6010	
Chromium	0.20 บ 0.050 บ	mg/L	EPA 6010 EPA 6010	08/23 08/24 DI 08/23 08/24 DI
Cobalt	0.10 U	mg/L mg/L	EPA 6010	08/23 08/24 Di 08/23 08/24 Di
Copper	0.050 U	mg/L	EPA_6010	08/23 08/24 Di
Iron	0.10 U	mg/L	EPA 6010	08/23 08/24 Di
Lead			EPA 6010 EPA 6010	08/23 08/24 Di
	0.10	mg/L	ELW OUIO	00/23 00/24 DI





ENVIRONMENTAL LABORATORY SERVICES

SNCE HOR		REPO	RT of ANAL	ysis &e		5633 B STET
Chemlab Ref.# :	93.4179-1		. sail			ANCHORAGE, AK 99518
Client Sample ID:	93.4179-1 BTR <del>SD08 WEB *</del> €8¢2 WATER	. 13F/	V ((, 3,5) 4			TEL: (907) 562-2343
Matrix	WATER			qual	0.00-0	FAX: (907) 561-5301
				qual	com	
Magnesium	0.20	U	mg/L	EPA 6010		08/23 08/24 DF
Manganese	0.050	U	mg/L	EPA 6010		08/23 08/24 DF
Molybdenum	0.050	U	mg/L	EPA 6010		08/23 08/24 DF
Nickel	0.050	U	mg/L	EPA 6010		08/23 08/24 DF
Potassium	5.0	U	mg/L	EPA 6010		08/23 08/24 DF
Selenium	. 0.10	U	mg/L	EPA 6010		08/23 08/24 DF
Silver	0.050	บ	mg/L	EPA 6010		08/23 08/24 DF
Sodium	0.25	U	mg/L	EPA 6010	n 1	08/23 08/24 DF
Thallium	0.005	U	mg/L	EPA 7841 UJ	B. 1	08/23 08/26 KA
Vanadium	0.050	U	mg/L	EPA 6010		08/23 08/24 DF
Zinc	0.050	U	mg/L	EPA 6010		08/23 08/24 DF
	-					
Dissolved Metals	s Analys			-		
ICP Screen, ICF				EPA	n/a	
Aluminum	0.10	U	mg/L	EPA 6010		08/23 08/24 DF
Antimony	0.10	U	mg/L	EPA 6010		08/23 08/24 DF
Arsenic	0.10	U	mg/L	EPA 6010		08/23 08/24 DF
Barium	0.050	U	mg/L	EPA 6010		08/23 08/24 DF
Beryllium	0.050	U	mg/L	EPA 6010		08/23 08/24 DF
Cadmium	0.050	U	mg/L	EPA 6010		08/23 08/24 DF
Calcium	0.20	U	mg/L	EPA 6010		08/23 08/24 DFI
Chromium	0.050	U	mg/L	EPA 6010		08/23 08/24 DFI
Cobalt	0.10	U	mg/L	EPA 6010		08/23 08/24 DFI 08/23 08/24 DFI
Copper	0.050	U	mg/L	EPA 6010		
Iron	0.10	U	mg/L	EPA 6010		08/23 08/24 DFI 08/23 08/24 DFI
Lead	0.10	U	mg/L	EPA 6010		08/23 08/24 DFI 08/23 08/24 DFI
Magnesium	0.20	U	mg/L	EPA 6010		08/23 08/24 DFT
Manganese	0.050	U	mg/L	EPA 6010		08/23 08/24 DET
Molybdenum	0.050	U	mg/L	EPA 6010		08/23 08/24 DFT
Nickel	0.050 5.0	U U	mg/L	EPA 6010 EPA 6010		08/23 08/24 DET
Potassium		Ü	mg/L			08/23 08/24 DFT
Selenium	0.10	Ü	mg/L	EPA 6010 EPA 6010		08/23 08/24 DET
Silver	0.050	_	mg/L			08/23 08/24 DFT
Sodium	0.25	U	mg/L	EPA 6010	B.1	08/23 08/26 KA
Thallium	0.005		mg/L			08/23 08/24 DFT
Vanadium	0.050 0.050		mg/L	EPA 6010 EPA 6010		08/23 08/24 DFI
Zinc	0.050	U	mg/L	EPA GUIU		08/23 00/24 DIT
TOC, Nonpurgable	•			EPA 9060	n/a	
TOC Range	5.0-5.0	Ţī	mg/L	EPA 9060	, a	08/27 CMF
TOC Range			mg/L	EPA 9060		08/27 CMF
IOC CONCENTE	3.0	5	g/ L	La 11 7000		
Residue, Non-Fi	lterable 4		mg/L	EPA 160.2		08/24 08/24 GPF
Residue, Filtera			mg/L	EPA 160.1	500	08/20 08/23 RJF
MC31dde, t 11terd			5/ ₩			·

J. U.

UA = Unavailabl NA = Not Analyz

LT = Less Than

GT = Greater Than



**© SGS** Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above

^{**} See Sample Remarks Above,

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Chemlab Ref.* Client Sample ID :BTR 658 SED2

193.4215-6 €8Ø3

Matrix

BFM 11-7-44 WATER

Client Name Ordered By

:ICF KAISER ENGINEERING

169826 108/27/93

Project Name

RAY HORRIS

e 16:00 h :08/18/93

Project*

DEN LINE BARTER

108/20/93 8 11:30 h

PWSID

:UA

Received

RUSH Order

Collected

Report Completed

Technical Director: STEPHEN C.
Released By :

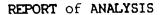
Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Qualifici Commuts

਼ ਠਵ	white weightings				. ( <i>y</i>	lauful	MILLEN		
İ		Q Results Qu	c al	Units	Method	Allowable Limits		Anal Date	In
}	Parameter				3510/3550/8100H		08/22	08/23	J
	Hydrocarbons EPH	0.100 U		mg/L	3210/3220/01001				
	117000000000000000000000000000000000000				EPA 8015H/8020			-0/04	•1
1	VPH & BTEX	0.020 U	ı	ng/L	EPA 5030/8015m		08/24	08/24	-
l	Hydrocarbons VPH						00/24	08/24	
	·	0.0010 U	3	mg/L	EPA 8020	v 1	00/21	08/24	F
l.	Benzene	0.0032		mg/L	EPA 8020 (N)	7.1	09/24	08/24	Š
	Toluene	0.0010	3	mg/L	EPA 8020			08/24	ì
	Ethylbenzene	0.0010	J	mg/L	EPA 8020			08/24	i
	p&m Xylene		J	mg/L	EPA 8020		VU/ Z-	. 00/=-	•
	o-Xylene			_					
ŧ	ta Labo Bost				EPA 8080		09/21	08/24	1
	Organochlorine Pest	0.0001	ט	mg/L	EPA 8080	•	00/2	08/24	i
f ·	Aldrin		U	mg/L	EPA 8080		08/2	08/24	i
1	Alpha-BHC		U	mg/L	EPA 8080		08/2	1 08/24	j
١.	Beta-BHC		U	mg/L	EPA 8080		08/2	1 08/24	1
	Delta-BHC	0.0001	U	mg/L	EPA 8080		08/2	1 08/24	1
1	Gamma-BHC		U	mg/L	EPA 8080		08/2	1 08/24	1
i	Chlordane		U	mg/L	EPA 8080		08/2	1 08/24	
* *	4,4'-DOD	0.0001	U	mg/L	EPA 8080		08/2	1 08/24	
•	4,4'-DOE		U	mg/L	EPA 8080		08/2	1 08/24	
1.	4,4'-DDT		U	mg/L	EPA 8080		08/2	1 08/24	
ι.	Dieldrin	0.0001	U	mg/L	EPA 8080		08/2	1 08/24	
	Endosulfan I	0.0001	U	mg/L	EPA 8080		08/2	1 08/24	1
1 -	Endosulfan II	0.0001	U	mg/L	EPA 8080		08/2	1 08/24	Į.
1 .	Endosulfan Sulfate	0.0001	U	mg/L	EPA 8080	•	08/2	1 08/24	
١.	Endrin	0.0001	U	mg/L	EPA 8080		08/2	21 08/24	1
	Endrin Aldehyde	0.0001	U	mg/L	EPA 8080		08/2	21 08/24	1
1.	Heptachlor Frowide	0.0001	U	mg/L	EPA 8080			21 08/24	
l.	Heptachlor Epoxide	0.0001	U	mg/L	EPA 8080			21 08/24	
1	Methoxychlor	0.001	U	mg/L	EPA 8080		08/	21 08/24	•
. 1	Toxaphene	0.001	U	mg/L			08/	21 08/24	ĺ
] _	PCB-1016	0.001	U	mg/L	EPA 8080			21 08/24	
L.,	PCB-1221	0.001	U	mg/L				21 08/2	
	PCB-1232	0.001	U					21 08/2	
	PCB-1242	0.001	U					21 08/2	
	PCB-1248	0.001	U					21 08/2	
••••	PCB-1254	0.001	U	mg/L	EPA 8080	•			
	PCB-1260								



ENVIRONMENTAL LABORATORY SERVICES



:93.4213-4 Chemlab Ref.#

Client Sample ID :BTR SS13 SEB2- EB03 6FM 11.7.94

Matrix

:WATER

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE :BARTER

Project# PWSID

:UA

WORK Order

Report Completed :09/20/93

Collected Received

:08/18/93 :08/20/93

:69842

@ 16:00 @ 11:30 h

5633 B STREE ANCHORAGE. AK 9951

TEL: (907) 562-234

FAX: (907) 561-530

Technical Director: STEPHEN C. EDE Released By : Mayer

Sample Remarks: SAMPLE COLLECTED BY: L.M., M. LEMMA, AND ROBERT T. 6 CONTAINERS WERE RECEIVED FOR THIS SAMPLE, CHAIN OF CUSTODY MARKED FOR 7 CONTAINERS.

RECEIVED FOR	IUTO OUT	و مناسط علا	CIMIN O	. ,				-	
Parameter	Results	QC Qual	Units	O O	Method	Allowable Limits	Ext. Date	Anal Date	In
Volatile Organics				1/-	EPA 8260				
Benzene	0.0010	U	mg/Lis	٢	EPA 8260			08/31	F
Bromobenzene	0.0010	U	mg/L,	1	EPA 8260			08/31	F
Bromochloromethane	0.0010	บ	mg/L	- 1	EPA 8260			08/31	F
Bromodichloromethane	0.0010		mg/L	1	EPA 8260			08/31	F
Bromoform	0.0010	ប	mg/L	- 1	EPA 8260			08/31	ŀ
Bromomethane	0.0010	U	mg/L	- 1	EPA 8260			08/31	k
n-Butylbenzene	0.0010	U	mg/L	- 1	EPA 8260		08/31		F
sec-Butylbenzene	0.0010	บ	mg/L		EPA 8260			08/3	K
tert-Butylbenzne	0.0010	บ	mg/L	- 1	EPA 8260			08/31	F
Carbon Tetrachloride	0.0010	U	mg/L		EPA 8260			08/31	ŀ
Chlorobenzene	0.0010	U	mg/L	- 1	EPA 8260			08/31	F
Chloroethane	0.0010	ប	mg/L	- [	EPA 8260			08/31	r
Chloroform	0.0010	บ	mg/L	1	EPA 8260			08/31	ŀ
Chloromethane	0.0010		mg/L	- 1	EPA 8260			08/31	
2-Chlorotoluene	0.0010		mg/L	- 1	EPA 8260			08/31	
4-Chlorotoluene	0.0010		mg/L	1	EPA 8260			08/31	ŀ
Dibromochloromethane	0.0010		mg/L	Į	EPA 8260			08/31	
12Dibromo3Chloropropane	0.0010		mg/L	1	EPA 8260			08/31	
1,2-Dibromoethane	0.0010		mg/L		EPA 8260		08/31	08/31	
Dibromomethane	0.0010		mg/L		EPA 8260		08/31	08/31	
1.2-Dichlorobenzene	0.0010		mg/L		EPA 8260			08/31	
1,3-Dichlorobenzene	0.0010		mg/L		EPA 8260		08/31	08/31	
1,4-Dichlorobenzene	0.0010		mg/L		EPA 8260			08/31	
Dichlorodifluoromethane	0.0010		mg/L		EPA 8260			08/31	
1,1-Dichloroethane	0.0010		mg/L		EPA 8260			08/31	
1,2-Dichloroethane	0.0022		mg/L		EPA 8260			08/31	
1,1-Dichloroethene	0.0010		mg/L		EPA 8260			08/31	
cis-1,2-Dichloroethene	0.0010		mg/L		EPA 8260		08/31	08/31	}
C15-1, 2-Dichiorosthene	0.0010		mg/L		EPA 8260		08/31	08/31	. 1
trans1,2-Dichloroethene	0.0010		mg/L		EPA 8260		08/31	08/31	. 1
1,2-Dichloropropane	0.0010		mg/L	1	EPA 8260			08/31	
1,3-Dichloropropane	0.0010		mg/L	1	EPA 8260		08/31	08/31	. 1
2,2-Dichloropropane	0.0010		mg/L		EPA 8260			08/31	
1,1-Dichloropropene	0.0010	_	mg/L	1	EPA 8260			08/31	
Ethylbenzene	0.0010		mg/L		EPA 8260			08/	1
Hexachlorobutadiene Isopropylbenzene	0.0010		mg/L	/	EPA 8260	<b>~</b>		08/31	1

## COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

<u> </u>		·		
5.NCE 908	RE	PORT of A	NALYSIS SEE	
Chemlab Ref.# :93.4213-4			1	5633 8 STREE
Client Sample ID :BTR SS13 S	EBB2 EBØ3	3504	Tol In	TEL: (907) 562-234:
Matrix :WATER	,	²⁶ 4 11.≯.94 \(\)	UMB mad VA-2	FAX: (907) 561-530
		3FM 11.7.94 \	Contract	
<pre>p-Isopropyltoluene</pre>	0.0010 U	mg/LJ	¥. EPA 8260 ·	09/21 00/24
Methylene Chloride	0.0024	ng/L,	LEPA 8260	08/31 08/31 KI
Napthalene	0.0010 U			08/31 08/31 KI
n-Propylbenzene			EPA 8260	08/31 08/31 K
			EPA 8260	08/31 08/31 KF
Styrene	0.0010 U		EPA 8260	08/31 08/31 KF
1112-Tetrachloroethane	0.0010 U		EPA 8260	08/31 08/31 KV
1122-Tetrachloroethane	0.0010 U	5,	EPA 8260	08/31 08/31 KV
Tetrachloroethene	0.0010 U	mg/L	EPA 8260	08/31 08/31 KV
Toluen <b>e</b>	0.0010 U	mg/L	EPA 8260	08/31 08/31 KF
1,2,3-Trichlorobenzene	0.0010 U		EPA 8260	08/31 08/31 KT
1,2,4-Trichlorobenzene	0.0010 U		EPA 8260	08/31 08/31 KF
1,1,1-Trichloroethane	0.0010 U		EPA 8260	
1,1,2-Trichloroethane	0.0010 U		EPA 8260	
Trichloroethene	0.0010 U		EPA 8260	
Trichlorofluoromethane	0.0010 U		EPA 8260	08/31 08/31 KW
1,2,3-Trichloropropane	0.0010 U	5/	EPA 8260	08/31 08/31 KW
1,2,4-Trimethylbenzene	0.0010 U	3/ _		08/31 08/31 KW
1,3,5-Trimethylbenzene	0.0010 U		EPA 8260	08/31 08/31 KW
Vinyl Chloride		J	. EPA 8260	08/31 08/31 KW
	0.0010 U		EPA 8260	08/31 08/31 KW
p+m-Xylene	0.0010 U		/ EPA 8260	08/31 08/31 KW
o-Xylene	0.0010 U	mg/LV	✓ VEPA 8260	08/31 08/31 KW
Semivolatile Organics			EPA 8270	
Phenol	0.010 U	mg/L	EPA 8270	08/24 08/25 MT
bis(2-Chloroethyl)ether	0.010 U	mg/L	EPA 8270	08/24 08/25 HT
2-Chlorophenol	0.010 U	mg/L	EPA 8270	08/24 08/25 MT
1,3-Dichlorobenzene	0.010 U	mg/L	EPA 8270	08/24 08/25 HT
1,4-Dichlorobenzene	0.010 U		EPA 8270	08/24 08/25 MT
Benzyl Alcohol	0.010 U		EPA 8270	08/24 08/25 MT
1,2-Dichlorobenzene	0.010 U		EPA 8270	08/24 08/25 MT
2-Methylphenol	0.010 U		EPA 8270	
bis(2-Chloroisopropyl)e	0.010 U	3, —	J(b) EPA 8270	
4-Methylphenol	0.010 U	mor/f /	SEM . TON 8270	08/24 08/25 HT
n-Nitroso-di-n-Propylam	0.010 U	mg/L	W.7.44 EPA 8270	08/24 08/25 HT
Hexachloroethane	0.010 U		EPA 8270	08/24 08/25 MT
Nitrobenzene	0.010 U		,	08/24 08/25 MT
Isophorone	0.010 U		EPA 8270	08/24 08/25 HT
2-Nitrophenol		<b>.</b>	EPA 8270	08/24 08/25 HT
2,4-Dimethylphenol	0.010 U		EPA 8270	08/24 08/25 MT
	0.010 U	- J	EPA 8270	08/24 08/25 MT
Benzoic Acid	0.010 U		EPA 8270	08/24 08/25 MT
bis(2-Chloroethoxy)Meth	0.010 U	J	EPA 8270	08/24 08/25 MT
2,4-Dichlorophenol	0.010 U		EPA 8270	08/24 08/25 MT
1,2,4-Trichlorobenzene	0.010 U	3, ₁	EPA 8270	08/24 08/25 MT
Naphthalene	0.010 U	··· J, )	EPA 8270	08/24 08/25 MT.
4-Chloroaniline	0.010 U	5,	EPA 8270	08/24 08/25 MT
Hexachlorobutadiene	0.010 บ		EPA 8270	08/24 08/25 HT
4-Chloro-3-Methylphenol	0.010 บ		EPA 8270	08/24 08/25 MT
2-Methylnaphthalene	0.010 U		EPA 8270	08/24 08/25 MT
Hexachlorocyclopentadie	0.010 U		EPA_8270	08/24 08/25 MT
2,4,6-Trichlorophenol	0.010 U		EPA 8270	08/24 08/25 MT
2,4,5-Trichlorophenol	_	mg/L\	EPA 8270	08/24 08/25 HT
• • • • • • • • • • • • • • • • • • • •				00/23 00/23 NI
			Sumbrildpi	
		(	Punha	-
•				



ENVIRONMENTAL LABORATORY SERVICES

5 No. E . M. B.		REPO	ORT of ANA	ALYSIS XX		5633 B S	EI
Chemlab Ref.# :93.4213-4				QUALIFIED .		ANCHORAGE, AK	99518
Client Sample ID :BTR SS13	SEB2-	/				TEL: (907) 562	
Matrix :WATER		- (	COMMEN	<b>'</b> )		FAX: (907) 561	1-530 1
		V	<b>U</b>				
2-Chloronaphthalene	0.010	บั	V mg/L	EPA 8270		08/24 08/25	H
2-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	H'
Dimethylphthalate	0.010	U	mg/L	EPA 8270	•	08/24 08/25	H.
Acenaphthylene	0.010	U	mg/L	EPA 8270		08/24 08/25	H
2.6-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	H.
3-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	H.
Acenaphthene	0.010	U	mg/L	EPA 8270		08/24 08/25	M'
2,4-Dinitrophenol	0.010	Ü	mg/L	EPA 8270		08/24 08/25	M'
4-Nitrophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	H
Dibenzofuran	0.010	U	mg/L	EPA 8270		08/24 08/25	H'
2,4-Dinitrotoluene	0.010	U	mg/L	EPA 8270		08/24 08/25	ĸ
Diethylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	H'
4-Chlorophenyl-Phenylet	0.010	U	mg/L	EPA 8270		08/24 08/25	M.
Fluorene	0.010	U	mg/L	EPA 8270	4.	08/24 08/25	M'
4-Nitroaniline	0.010	U	mg/L	EPA 8270		08/24 08/25	. <b>H</b> .
4,6-Dinitro-2-Methylphe	0.010	U	mg/L	EPA 8270		08/24 08/25	H
n-Nitrosodiphenylamine	0.010	บ	mg/L	EPA 8270		08/24 08/25	M
4-Bromophenyl-Phenyleth	0.010	U	mg/L	EPA 8270		08/24 08/25	M'
Hexachlorobenzene	0.010	ប	mg/L	EPA 8270		08/24 08/25	M
Pentachlorophenol	0.010	U	mg/L	EPA 8270		08/24 08/25	H.
Phenanthrene	0.010	U	mg/L	EPA 8270		08/24 08/25	H
Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	<u> </u>
di-n-Butylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	
Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	H'
Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	H'
Butylbenzylphthalate	0.010	U	_ mg/L	EPA 8270		08/24 08/25	M'
3,3-Dichlorobenzidine	0.010	บว	(D) mg/L	EPA 8270		08/24 08/25	H'
Benzo(a)Anthracene	0.010	Ü	mg/L	EPA 8270		08/24 08/25	H'
Chrysene	0.010	U	mg/L	EPA 8270		08/24 08/25	M'
bis(2-Ethylhexyl)Phthal	0.010	U	mg/L	EPA 8270		08/24 08/25	M'
di-n-Octylphthalate	0.010	U	mg/L	EPA 8270		08/24 08/25	H'
Benzo(b)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	M'
Benzo(k)Fluoranthene	0.010	U	mg/L	EPA 8270		08/24 08/25	H
Benzo(a)Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Indeno(1,2,3-cd)Pyrene	0.010	U	mg/L	EPA 8270		08/24 08/25	M'
Dibenz(a,h)Anthracene	0.010	U	mg/L	EPA 8270		08/24 08/25	H
Benzo(g,h,i)Perylene	0.010	U	mg/L	EPA 8270		08/24 08/25	M
Total Metals_Analysis				EDA -	2/2		
ICP Screen, ICF		,,	15	EPA	n/a	08/25 08/26	D
Aluminum	0.1		mg/L	EPA 6010 EPA 6010		08/25 08/26	D
Antimony	0.1		mg/L	EPA 6010		08/25 08/26	D
Arsenic	0.1	IJ	mg/L	EPA 6010		08/25 08/26	D
Barium	0.05 0.05		mg/L	EPA 6010		08/25 08/26	D
Beryllium	0.05		mg/L	EPA 6010		08/25 08/26	Ď
Cadmium	0.05		mg/L	EPA 6010		08/25 08/26	Ď
Calcium	0.2		mg/L	EPA 6010		08/25 08/26	Ď
Chromium	0.05		mg/L mg/L	EPA 6010		08/25 08/26	Ď
Cobalt	0.05		mg/L	EPA 6010		08/25 08/26	D
Copper	0.03		mg/L	EPA 6010	· · -	08/25 08/2	D
Iron		U	mg/ L	· · · · · · · · · · · · · · · · · ·			
	•					•	



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT OF ANALYSIS & Chemlab Ref.# :93.4213-4 EBØ3 5633 B STREE BFM 11.7.94 Client Sample ID :BTR SS13 SEB2 * ANCHORAGE, AK 99511 TEL: (907) 562-234 Matrix :WATER FAX: (907) 561-530 Lead 0.1 U mg/L EPA 6010 08/25 08/26 Magnesium DI 0.2 U mg/L **EPA** 6010 08/25 08/26 Manganese DI 0.05 U mq/L **EPA** 6010 08/25 08/26 DI Molybdenum 0.05 U mg/L **EPA** 6010 08/25 08/26 Nickel DI 0.05 U mg/L **EPA** 6010 08/25 08/26 DI Potassium 5 U mg/L **EPA** 6010 08/25 08/26 Selenium DI 0.1 U mg/L **EPA** 6010 08/25 08/26 DI Silver 0.05 U mg/L **EPA** 6010 08/25 08/26 DI Sodium 0.25 Ü mg/L **EPA** 6010 08/25 08/26 DI Thallium 0.0050 U mg/L EPA 7841 08/24 08/26 Vanadium K 0.05 U mg/L **EPA** 6010 08/25 08/26 DI Zinc 0.05 U mq/L **EPA** 6010 08/25 08/26 DI TOC, Nonpurgable **EPA** 9060 n/a ...TOC Range 5.0-5.0 U mq/L EPA 9060 08/30 ...TOC Concentration Cl 5.0 mg/L EPA 9060

See Special Instructions Above See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

08/30

CF

NA = Not Analyzed

LT = Less Than GT = Greater Than



**SGS** Member of the SGS Group (Société Générale de Surveillance)



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

· Chemlab Ref.# :93.4215-7

Client Sample ID :BTR SS13 WEB2 E6032 Matrix

:WATER

ANCHORAGE, AK 9951 TEL (907) 562-234 FAX (907) 561-530

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

**PWSID** 

: RAY MORRIS :DEW LINE : BARTER

:UA

RUSH Order

:69826

Report Completed :08/27/93

Collected Received

:08/18/93 **@** 16:00

**:08/20**/93 @ 11:30 h Technical Director: STEPHEN C. EDE

Released By : Stoten C. The

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In:
Hydrocarbons EPH	0.100	U	mg/L	3510/3550/8100M				
VPH & BTEX						08/22	08/23	JI
Hydrocarbons VPH	0.020	U	mg/L	EPA 8015M/8020 EPA 5030/8015m		08/24	08/24	
Benzene	0.0010	บ	/			00/24	00/24	WI
Toluene	0.0010	Ü	mg/L	EPA 8020		08/24	08/24	WI
Ethylbenzene	0.0010	Ü	Mag/L	EPA 8020		08/24	08/24	MI
p&m Xylene	0.0010	Ü	ing/L ing/L	EPA 8020		08/24	08/24	WI
o-Xylene	0.0010	Ŭ	-	EPA 8020		08/24	08/24	WI
		•	mg/L	EPA 8020		08/24	08/24	
Organochlorine Pest							00,21	
Aldrin	0.0001	U	ma //	EPA 8080				
Alpha-BHC	0.0001	Ü	mg/L	EPA 8080		08/21	08/24	NF
Beta-BHC	0.0001	Ü	mg/L	EPA 8080	*	08/21	08/24	NF
Delta-BHC	0.0001	Ü	mg/L	EPA 8080		08/21	08/24	NI
Gamma-BHC	0.0001	Ü	mg/L	EPA 8080		08/21	08/24	NF
Chlordane	0.001	Ü	mg/L	EPA 8080		08/21	08/24	NF
4,4'-DDD	0.0001	Ü	mg/L	EPA 8080		08/21	08/24	NE
4,4'-DDE	0.0001	Ü	ING/L	EPA 8080		08/21	08/24	NI
4,4'-DDT	0.0001	Ü	mg/L	EPA 8080		08/21	08/24	NI
Dieldrin	0.0001	Ü	ing/[, ing/[,	EPA 8080		08/21	08/24	NI
Endosulfan I	0.0001	Ŭ	ing/L	EPA 8080		08/21	08/24	NI
Endosulfan II	0.0001	Ŭ	mg/L	EPA 8080		08/21	08/24	NI
Endosulfan Sulfate	_	บั	ING/L	EPA 8080		08/21 (	08/24	NI
Endrin		Ü	mg/L	EPA 8080		08/21 (	08/24	NI
Endrin Aldehyde		Ū	mg/L	EPA 8080		08/21 (	8/24	NI
Heptachlor	0.0001	Ü	mg/L	EPA 8080		08/21 (	8/24	NI
Heptachlor Epoxide	0.0001	Ū	mg/L	EPA 8080		08/21 (	8/24	NI
Methoxychlor	0.0001	Ü	mg/L	EPA 8080		08/21 0	8/24	NI
Toxaphene	0.0001	U	mg/L	EPA 8080		08/21 0	8/24	NI
PCB-1016	0.0001		mg/L	EPA 8080		08/21 0	8/24	NI
PCB-1221	0.001		mg/L	EPA 8080		08/21 0	8/24	NI
PCB-1232	0.001	• •	ing/L	EPA 8080		08/21 0	8/24	NI
PCB-1242			mg/L	EPA 8080	(	08/21 0	8/24	NI
PCB 1248			mg/[	EPA 8080 EPA 8080	(	08/21 0	8/24	NI
PCB-1254			mg/L	EPA 8080	•	08/21 0	8/24	N) =
PCB- 1260	0.001		mg/[,	EPA 8080	(	08/21 0	8/24	
				M V OVOR	(	08/21 0	8/24	



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

:93.4211-1

REPORT of ANALYSIS

Client Sample ID :BTR SS13 WEB EB03a

Matrix

:WATER

5nuf 12.7.44

ANCHORAGE, AK 9951 TEL: (907) 562-234; FAX: (907) 561-5301

5633 B STREET

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name :RAY MORRIS :DEW LINE

Project# PWSID

:BARTER

:UA

Report Completed

WORK Order :69838 :09/09/93

Collected

:08/18/93 **@ 16:00** 

Received

:08/20/93 @ 11:30 hr

Technical Director: STEPHEN, C. EDE
Released Bv :

Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M.

	Parameter	Results	Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Ini [.]
	Volatile Organics								
	Benzene	0.0010	U	~	EPA 8260				
	Bromobenzene	0.0010	Ü	mg/L	EPA 8260		08/27	08/27	KWI
	Bromochloromethane	0.0010	Ü	mg/L	EPA 8260		08/27	08/27	KWI
	Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWI
	Bromoform	0.0010	U	mg/L	EPA 8260		08/27	08/27	KW
	Bromomethane	0.0010	U Ü	mg/L	EPA 8260		08/27	08/27	KWI
	n-Butylbenzene	0.0010	_	mg/L	EPA 8260		08/27	08/27	KWI
	sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/27		KWM
	tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/27		KWP
V	Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/27	08/27	KWE
	Chlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/27		KWH
	Chloroethane	0.0010	U	mg/L	EPA 8260		08/27		KWM
	Chloroform	0.0010	U	mg/L	EPA 8260		08/27		KWH
	Chloromethane	0.0010	U U	ng/L	EPA 8260		08/27		KWM
	2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27		KWH
	4-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	Dibromochloromethane	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	12Dibromo3Chloropropane	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	1,2-Dibromoethane	0.0010	U U	mg/L	EPA 8260		08/27		KWM
	Dibromomethane	0.0010	_	mg/L	EPA 8260		08/27		KWH
	1,2-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/27		KWM
	1,4-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/27		KWM
	1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		08/27		KWM
	1,2-Dichloroethane	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	1,1-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	cis-1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	trans1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/27		KWM
	1,2-Dichloropropane	0.0010	U U	mg/L	EPA 8260		08/27	-	KWM
	1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27		KWM
	2,2-Dichloropropane	0.0010	U []	mg/L	EPA 8260		08/27		KWM
	1,1-Dichloropropene	0.0010	•	mg/L	EPA 8260		08/27		KWM
	Ethylbenzene	0.0010	U	mg/L	EPA 8260		08/27		KWH
	Hexachlorobutadiene	0.0010	U	mg/L	EPA 8260		08/27		KWM
	Isopropylbenzene	0.0010	U	mg/L	EPA 8260		08/27		KWM
	p-Isopropyltoluene	0.0010	U 11	mg/L	EPA 8260		08/27		KWM
		, , , , , ,	U	mg/L	EPA 8260		08/27		KWM



# COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

	egø3~ repor	T of ANAL	YSIS	5633 B T
221 ab Det # 193.441171	EB9 71.7.94 NV		•	ANCHORAGE, A. TEL: (907) 562-2343
Client Sample ID :BTR SS13 W	EB 2 11.7.94 77W			FAX: (907) 561-5301
Matrix :WATER	•			
pace 2.			0050	08/27 08/27 KWI
Methylene Chloride	0.0036	mg/L	EPA 8260	08/27 08/27 KWI
Napthalene	0.0010 U	mg/L	EPA 8260	08/27 08/27 KWI
n-Propylbenzene	0.0010 U	mg/L	EPA 8260	* - • - · · · · · · · · · · · · · · · · ·
Styrene	0.0010 U	mg/L	EPA 8260	08/27 08/27 KWI 08/27 08/27 KWI
1112-Tetrachloroethane	0.0010 U	mg/L	EPA 8260	
1122-Tetrachloroethane	0.0010 U	mg/L	EPA 8260	• — • · · · · · · · · · · · · · · · · ·
Tetrachloroethene	0.0010 U	mg/L	EPA 8260	<b>00, -</b> · · · ·
Toluene	0.0033	mg/L	EPA 8260	
1,2,3-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	
1,2,4-Trichlorobenzene	0.0010 U	mg/L	EPA 8260	· · · · · · · · · · · · · · · · · · ·
1,1,1-Trichloroethane	0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
1,1,2-Trichloroethane	0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
Trichloroethene	0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
Trichlorofluoromethane	0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
Tricutororometrare	0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
1,2,3-Trichloropropane	0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
1,2,4-Trimethylbenzene	0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
1,3,5-Trimethylbenzene	0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
Vinyl Chloride		mg/L	EPA 8260	· 08/27 08/27 KW
p+m-Xylene	0.0010 U 0.0010 U	mg/L	EPA 8260	08/27 08/27 KW
o-Xylene	0.0010 0	1104 17 0-710	N QUALIFIER	
		(COMMED)	PA 8270	
Semivolatile Organics	0.011	/ mg/L	EPA 8270	08/24 08/25 HT
Phenol	• • • • •	mg/L	EPA 8270	08/24 08/25 MT
bis(2-Chloroethyl)ether	••••	mg/L	EPA 8270	08/24 08/25 HT
2-Chlorophenol	• • •	mg/L	EPA 8270	08/24 08/25 HI
1,3-Dichlorobenzene			EPA 8270	08/24 08/25 MI
1,4-Dichlorobenzene	• • •	ing/L	EPA 8270	08/24 08/25 HT
Benzyl Alcohol	••••	mg/L	EPA 8270	08/24 08/25 MJ
1,2-Dichlorobenzene	• • • • •	mg/L	EPA 8270	08/24 08/25 MT
2-Methylphenol	0.011 U	mg/L	EPA 8270	08/24 08/25 M?
bis(2-Chloroisopropyl)e		(b) mg/L	EPA 8270	08/24 08/25 M
4-Methylphenol	0.011 U	mg/L	EPA 8270	08/24 08/25 MT
n-Nitroso-di-n-Propylam	0.011 U	mg/L	EPA 8270	08/24 08/25 MS
Hexachloroethane	0.011 U	mg/L	EPA 8270	08/24 08/25 MT
Nitrobenzene	0.011 U	mg/L	EPA 8270	08/24 08/25 M'
Isophorone	0.011 U	mg/L	EPA 8270	08/24 08/25 M
2-Nitrophenol	0.011 U	mg/L	EPA 8270	08/24 08/25 M'
2,4-Dimethylphenol	0.011 U	mg/L	EPA 8270	08/24 08/25 M
Benzoic Acid	0.011 U	mg/L	EPA 8270	08/24 08/25 M
his(2-Chloroethoxy)Meth	0.011 U	mg/L	EPA 8270	08/24 08/25 M
2.4-Dichlorophenol	0.011 U	mg/L	EPA 8270	08/24 08/25 M
1,2,4-Trichlorobenzene	0.011 U	mg/L	EPA 8270	08/24 08/25 M
Naphthalene	0.011 U	mg/L		08/24 08/25 M
4-Chloroaniline	0.011 U	mg/L	EPA 8270	08/24 08/25 M
Hexachlorobutadiene	0.011 U	mg/L	EPA 8270	08/24 08/25 M
4-Chloro-3-Methylphenol	0.011 U	mg/L	EPA 8270	08/24 08/25 M
2-Methylnaphthalene	0.011 U	mg/L	EPA 8270	08/24 08/25 M
Hexachlorocyclopentadie	0.011 U	mg/L	EPA 8270	08/24 08/25 M
2,4,6-Trichlorophenol	0.011 U	mg/L	EPA 8270	08/24 08/25 M
2,4,5-Trichlorophenol	0.011 U	mg/L	EPA 8270	08/24 08/25 H
2-Chloronaphthalene	0.011 U	mg/L	EPA 8270	00/24 00/23
<b>→ →</b> · · · · · · · · · · · · · · · · · · ·				•
	1			<u> </u>



### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908	EBP3a	REPORT of AL	VALYSIS			
Chemlab Ref.# :93.4211-	د حمد				56 ANCHORA	33 8 STREE GE. AK 9951
Client Sample ID :BTR 5313	WEB a "FF.77	VALIDATA	N QUALIFIER		TEL: (	907) 562-234
Matrix :WATER	mess gruk	/ Comm	ent)			907) 581-530
	•	V///	•			
2-Nitroaniline	0.011	U ♥ Vmg/L	EPA 8270		08/24 08/	/25 H
Dimethylphthalate	0.011	U mg/L	EPA 8270		08/24 08/	
Acenaphthylene	0.011	U mg/L	EPA 8270		08/24 08/	
2,6-Dinitrotoluene	0.011	U mg/L	EPA 8270		08/24 08/	
3-Nitroaniline	0.011	U mg/L	EPA 8270		08/24 08/	
Acenaphthene	0.011	U mg/L	EPA 8270		08/24 08/	
2,4-Dinitrophenol	0.011	U mg/L	EPA 8270		08/24 08/	
4-Nitrophenol	0.011	U mg/L	EPA 8270		08/24 08/	
Dibenzofuran	0.011	U mg/L	EPA 8270		08/24 08/	
2,4-Dinitrotoluene	0.011	U mg/L	EPA 8270		08/24 08/	
Diethylphthalate	0.011	U mg/L	EPA 8270		08/24 08/	
4-Chlorophenyl-Phenylet	0.011	U mg/L	EPA 8270		08/24 08/	
Fluorene	0.011	U mg/L	EPA 8270	•	08/24 08/	/25 hr
4-Nitroaniline	0.011	U mg/L	EPA 8270		08/24 08/	/25 M
4,6-Dinitro-2-Methylphe	0.011	U mg/L	EPA 8270		08/24 08/	
n-Nitrosodiphenylamine	0.011	U mag∕L	EPA 8270	•	08/24 08/	
4-Bromophenyl-Phenyleth	0.011	U mg/L	EPA 8270		08/24 08/	
Hexachlorobenzene	0.011	U mg/L	EPA 8270		08/24 08/	
Pentachlorophenol	0.011	U mg/L	EPA 8270		08/24 08/	
Phenanthrene	0.011	U mg/L	EPA 8270		08/24 08/	
Anthracene	0.011	U mg/L	EPA 8270		08/24 08/	
di-n-Butylphthalate	0.011	U mg/L	EPA 8270		08/24 08/	
Fluoranthene	0.011	U mg/L	EPA 8270		08/24 08/	
Pyrene	0.011	U mg/L	EPA 8270		08/24 08/	
Butylbenzylphthalate	0.011	U mg/L	EPA 8270		08/24 08/	
3,3-Dichlorobenzidine	0.011	UJ(D) mg/L	EPA 8270		08/24 08/	
Benzo(a)Anthracene	0.011	U mg/L	EPA 8270	• • '	08/24 08/	/25 M
Chrysene	0.011	U mg/L	EPA 8270	•	08/24 08/	/25 M'.
bis(2-Ethylhexyl)Phthal	0.011	U mg/L	EPA 8270		08/24 08/	/25 MT
di-n-Octylphthalate	0.011	U mg/L	EPA 8270		08/24 08/	/25 M:
Benzo(b)Fluoranthene	0.011	U mg/L	EPA 8270		08/24 08/	/25 <b>H</b> f.
Benzo(k)Fluoranthene	0.011	U mg/L	EPA 8270		08/24 08/	/25 MT
Benzo(a)Pyrene	0.011	U mag/L	EPA 8270		08/24 08/	/25 HI
Indeno(1,2,3-cd)Pyrene	0.011	U mg/L	EPA 8270		08/24 08/	
Dibenz(a,h)Anthracene	0.011	U mg/L	EPA 8270		08/24 08/	/25 HT
Benzo(g,h,i)Perylene	0.011	U mg/L	EPA 8270		08/24 08/	/25 <b>M</b> ′.
Motol Motols Applyais						
Total Metals Analysis			-			
ICP Screen, ICF Aluminum	Λ 1	11 7	EPA	n/a		
Antimony	0.1 0.1	ü mg/L ü mg/L	EPA 6010		08/25 08/	
Arsenic	0.1		EPA 6010		08/25 08/	
Barium	0.05	<b>3.</b>	EPA 6010		08/25 08/	
Beryllium	0.05		EPA 6010		08/25 08/	
Cadmium	0.05		EPA 6010		08/25 08/	
Calcium	0.03		EPA 6010		08/25 08/	
Chromium	0.05		EPA 6010		08/25 08/	
Cobalt	0.1	··· • · ·	EPA 6010		08/25 08/	
Copper	0.05	U mg/L U mg/L	EPA 6010		08/25 08/	
Iron	0.1	U mg/L	EPA 6010		08/25 08/	
Lead	0.1	U mg/L	EPA 6010 EPA 6010		08/25 08/	
Ç.M.	113 ·	- urg/L	PLY OUTO	.84	08/25 08/	/26 DI
<b>8</b>	ya t			7. <b>%</b>		
_	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					



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ENVIRONMENTAL LABORATORY SERVICES

	ENVIRONMENTAL	BORATOIT GE					
		REPORT	of ANALY	(SIS		5633 B S	Ţ
SINCE 1908	02.42111					ANCHORAGE, AK 9 TEL: (907) 562-	
Chemlab Ref. *	:93.4211-1	- FROZ 1STM				FAX: (907) 561.	
Client Sample	ID :BTR SS13 WEB	Sout 17	.794				
Matrix	:WATER	, , , , , , , , , , , , , , , , , , ,				08/25 08/26	DL
		0.2 U	mg/L	EPA 6010		08/25 08/26	DL
Magnesium			mg/L	EPA 6010		08/25 08/26	DL
Manganese			mg/L	EPA 6010		08/25 08/26	DL
Molybdenum			mg/L	EPA 6010		08/25 08/26	DL
Nickel			mg/L	EPA 6010		08/25 08/26	DL
Potassium			mg/L	EPA 6010		08/25 08/26	DE
Selenium		0.05 U	mg/L	EPA 6010		08/25 08/26	DI
Silver		0.25 U	mg/L	EPA 6010		08/24 08/26	KI
Sodium		0.0050 U	mg/L	EPA 7841		08/25 08/26	DI
Thallium		0.05 U	mg/L	EPA 6010		08/25 08/26	DI
<b>Vanadium</b>		0.05 U	mg/L	EPA 6010		00, 20 0-, -	
Zinc				a la Criera			
i	letals Analys	· val	idection gy comments mg/L	(0) (1 three 2	n/a		
Dissolved i	TOT	، ا	Comments	EPA	11/ 4	08/25 08/26	D
ICP Screen	, ICE	0.1 U S	mg/L	EPA 6010	•	08/25 08/26	D!
Aluminum		0.1 U	mg/L	EPA 6010		08/25 08/26	D.
Antimony		0.1 U	mg/L	EPA 6010		08/25 08/26	D
Arsenic		0.05 U	mg/L	EPA 6010		08/25 08/26	D
Barium		0.05 U	mg/L	EPA 6010		08/25 08/26	D
Beryllium		0.05 U	mg/L	EPA 6010		08/25 08/26	D
Cadmium		0.2 U	mg/L	EPA 6010 EPA 6010		08/25 08/26	L
Calcium Chromium	A section of	0.05 U	mg/L	EPA 6010		08/25 08/26	L L
Cobalt		0.1 U	mg/L	EPA 6010	•	08/25 08/2	E
Copper		0.05 U	mg/L	EPA 6010	•	08/25 08/26	Ĺ
Iron		0.1 U	mg/L	EPA 6010		08/25 08/26	Ţ
Lead		0.1 U	mg/L	EPA 6010		08/25 08/26	Ī
Magnesium	•	0.2 U	mg/L	EPA 6010		08/25 08/26	Ţ
Manganese		0.05 U 0.05 U	mg/L mg/L	EPA 6010		08/25 08/26	Ţ
Molybdenur	n	0.05 บ 0.05 บ	mg/L	EPA 6010		08/25 08/26	I I
Nickel	, [*]	5.0 U	mg/L	EPA 6010		08/25 08/26	
Potassium		0.1 U	mg/L	EPA 6010		08/25 08/26	1
Selenium		0.05 U	mg/L	EPA 6010		08/25 08/26	
Silver	•	0.25 U	mg/L	EPA 6010		08/25 08/26	
Sodium		0.0050 U	mg/L	EPA 7841		08/24 08/26 08/25 08/26	
Thallium		0.05 U	mg/L	EPA 6010		08/25 08/26	
Vanadium		0.05 U	mg/L	EPA 6010		06/23 00/20	
Zinc		0.00	2.		- 1-		
				EPA 9060	n/a	08/31	
TOC, Nonp	ardanie	5.0-5.0	mg/L	EPA 9060		08/31	
TOC Ra	nge tration	5.0 บ	mg/L	EPA 9060		00, <b>0</b> -	
TOC CC	ncentration					08/24 08/24	1
n	Non-Filterable	7	mg/L	EPA 160.2	5 <b>00</b>	08/25	5
Residue,	rilterable(TDS)	70	mg/L	EPA 160.1	500	. ,	
Residue,	1100100000						

UA = Unavail NA = Not Ana

LT = Less Than

GT = Greater Than



See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Memlab Ref.# :93.4302-10 Client Sample ID :BTR-EB-04 Matrix

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

Project Name Project#

PWSID

:RAY MORRIS :DEW LINE :BARTER :UA

WORK Order

:70001

Report Completed :09/28/93

Collected Received

:08/20/93

@ 18:00 hrs :08/24/93 @ 12:00 hrs

Technical Director: STEPHEN Ç. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qua	l Units	Me	ethod	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics									
Benzene	0.0010	11	ma /5		8260				
Bromobenzene	0.0010	Ü	mg/L		8260		09/02	09/02	KWM
Bromochloromethane	0.0010	Ü	mg/L		8260		09/02	09/02	KWM
Bromodichloromethane	0.0010	U	mg/L		8260			09/02	KWM
Bromoform	0.0010	Ü	mg/L		8260			09/02	KWM
Bromomethane	0.0010	U	mg/L		8260			09/02	KWM
n-Butylbenzene	0.0010	Ü	mg/L		8260			09/02	KWM
sec-Butylbenzene	0.0010		mg/L		8260			09/02	KWM
ert-Butylbenzne	0.0010	U	mg/L		8260			09/02	KWM
arbon Tetrachloride		Ü	mg/L		8260			09/02	KWM
Chlorobenzene	0.0010	U	mg/L		8260			09/02	KWM
Chloroethane	0.0010	Ü	mg/L		8260	,		09/02	KWM
Chloroform	0.0010	U	mg/L		8260			09/02	KWM
Chloromethane	0.0010	Ü	mg/L	EPA	8260			09/02	KWM
2-Chlorotoluene	0.0010	U	mg/L	EPA	8260			09/02	KWM
4-Chlorotoluene	0.0010	U	mg/L		8260			09/02	KWM
Dibromochloromethane	0.0010	U	mg/L	EPA	8260			09/02	KWM
12Dibromo3Chloropropane	0.0010	Ü	mg/L		8260			09/02	KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA	8260			09/02	KWM
Dibromomethane	0.0010	U	mg/L		8260			09/02	KWM
1,2-Dichlorobenzene	0.0010	U	mg/L		8260			09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA	8260		09/02	09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L		8260		09/02	09/02	KWM
Dichlored: Fluence + b	0.0010	Ü	mg/L		8260			09/02	
Dichlorodifluoromethane	0.0010	U	mg/L		8260			09/02	KWM KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA	8260		09/02		KWM
1,2-Dichloroethane		5 1	Mang/L at the last	EPA	8260		09/02		KWM
Cis 1 2 Dichlesset	0.0010	U	mg/L	EPA	8260		09/02		KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L		8260		09/02		KWM
trans1,2-Dichloroethene	0.0010	U	mg/L		8260		09/02		
1,2-Dichloropropane	0.0010	U	mg/L		8260		09/02		KWM
1,3-Dichloropropane	0.0010	U	mg/L		8260		09/02		KWM
2,2-Dichloropropane	0.0010	U	mg/L		8260		09/02		KWM
1,1-Dichloropropene	0.0010	U	mg/L		8260		09/02		KWM
Ethylbenzene		U	mg/L		8260		09/02	0 <i>3/</i> 0 <u>/</u> 00/02	KWM
Hexachlorobutadiene	0.0010	U	mg/L		8260		)9/02 )9/02		KWM
Isopropylbenzene	0.0010	U	mg/L		8260 ⁻		)9/02   )9/02		KWM
Isopropyltoluene	0.0010	U	mg/L		8260				KWM
	1				-200	•	9/02	03/02	KWM



ENVIRONMENTAL LABORATORY SERVICES

ENVIRONMENTAL	LABORAT	ORY :	SERVICES						
5 NOE 1908		REPO	RT of ANAL	YSIS				5633 B S	ibracii
Chemlab Ref.# :93.4302-10					1 11 11 1	11		ORAGE, AK	99518
Client Sample ID :BTR-EB-04					Malepie	1 3111		EL. (907) <b>56</b> AX. (907) <b>56</b>	
Matrix :WATER						!		(00)	
			4-				09/02	00/03	121.11
Methylene Chloride	0.0060		mg/L		8260 (J)-E	. [	09/02		KW!
Napthalene	0.0010	Ü	mg/L		8260		09/02		KW!
n-Propylbenzene	0.0010	U	mg/L mg/L		8260 8260		09/02		KWI
Styrene	0.0010	U U	mg/L		8260		09/02		KWI
1112-Tetrachloroethane	0.0010	Ü	mg/L		8260		09/02		KWI
1122-Tetrachloroethane	0.0010	Ü	mg/L		8260		09/02		KWI
Tetrachloroethene	0.0023	J	mg/L		8260		09/02	09/02	KWt
Toluene 1,2,3-Trichlorobenzene	0.0010	U	mg/L		8260		09/02	09/02	KWI
1,2,4-Trichlorobenzene	0.0010	Ü	mg/L		8260		09/02		KWI
1,1,1-Trichloroethane	0.0010	υ	mg/L		8260		09/02		KWt
1,1,2-Trichloroethane	0.0010	U	mg/L	EPA	8260		09/02		KWI
Trichloroethene	0.0010	U	mg/L	EPA	8260		09/02		KWF
Trichlorofluoromethane	0.0010	U	mg/L		8260			09/02	KMI
1,2,3-Trichloropropane	0.0010	U	mg/L		8260			09/02	KWI
1,2,4-Trimethylbenzene	0.0010	U	mg/L		8260			09/02	-KWI
1,3,5-Trimethylbenzene	0.0010	U	mg/L		8260			09/02	KWI
Vinyl Chloride	0.0010	U	mg/L		8260			09/02	KWI
p+m-Xylene	0.0010	U	mg/L		8260			09/02	KWI KWI
o-Xylene	0.0010	U	mg/L	EPA	8260		09/02	09/02	LMI
				FPA	8270				
Semivolatile Organics	0.027		mg/L		8270		08/27	09/03	GV.
Phenol	0.025	υ	mg/L		8270			09/03	G', G',
bis(2-Chloroethyl)ether 2-Chlorophenol	0.069	Ū	mg/L		8270		08/27	09/03	G/
1,3-Dichlorobenzene	0.025	U	mg/L		8270			09/03	G۱
1,4-Dichlorobenzene	0.025	U	mg/L		8270			09/03	GV
Benzyl Alcohol	0.025	U	mg/L		8270			09/03	G۱
1,2-Dichlorobenzene	0.025	U	mg/L	EPA	8270			09/03	G\ G\
2-Methylphenol	0.025	U	mg/L		8270			09/03	GV C
bis(2-Chloroisopropyl)e	0.025	U	mg/L		8270			09/03	G <i>\</i> G <i>\</i>
4-Methylphenol	0.025	U	mg/L		8270			09/03 09/03	GV GV
n-Nitroso-di-n-Propylam	0.025	U	mg/L		8270			09/03	GV GV
Hexachloroethane	0.025	บ	mg/L		8270			09/03	GV
Nitrobenzene	0.025	U	mg/L		8270 8270			09/03	GV
Isophorone	0.025 0.025	U U	mg/L mg/L		82 <b>70</b>			09/03	GV
2-Nitrophenol	0.025	บ	mg/L		8270			09/03	GV
2,4-Dimethylphenol	0.025	บ	mg/L		8270			09/03	GV
Benzoic Acid bis(2-Chloroethoxy)Meth	0.025	Ü	mg/L		8270			09/03	G∇
2,4-Dichlorophenol	0.025	Ü	mg/L		8270			09/03	G\
1,2,4-Trichlorobenzene	0.025	U	mg/L		82 <b>70</b>			09/03	G۷
Naphthalene	0.025	U	mg/L	EPA	8270		08/27	09/03	G/
4-Chloroaniline	0.025	U	mg/L		82 <b>70</b>		08/27	09/03	GV.
Hexachlorobutadiene	0.025	U	mg/L	EPA	8270			09/03	G <i>I</i> ,
4-Chloro-3-Methylphenol	0.075	••	mg/L		. 82 <b>70</b>			09/03 09/03	G/
2-Methylnaphthalene	0.025	Ü	mg/L		8270			09/03	G1
Hexachlorocyclopentadie	0.025	U	mg/L		. 82 <b>70</b> . 82 <b>70</b>			09/03	G\
2,4,6-Trichlorophenol	0.025 0.025	U U	mg/L mg/L		8270		08/27	09/03	_ G\
2,4,5-Trichlorophenol	0.025		mg/L		8270			09/03	GV
2-Chloronaphthalene		J			2.,				



ENVIRONMENTAL LABORATORY SERVICES

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51+CE 1908		REP	ORT of ANAI	LYSIS		5000	0705
Chemlab Ref.# :93.4302-10			-			5633 B ANCHORAGE, A	STREET K 99518
Client Sample ID :BTR-EB-04						TEL: (907) 5	62-2343
Matrix :WATER						FAX: (907) 5	61-5301
2-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27 09/03	$G_{i}$
Dimethylphthalate	0.025	U	mg/L	EPA 8270		08/27 09/03	G'
Acenaphthylene	0.025	U	mg/L	EPA 8270		08/27 09/03	G\
2,6-Dinitrotoluene	0.025	U	mg/L	EPA 8270		08/27 09/03	G١
3-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27 09/03	G\
Acenaphthene	0.025	U	mg/L	EPA 8270		08/27 09/03	G\
2,4-Dinitrophenol	0.025	U	mg/L	EPA 8270		08/27 09/03	G/
4-Nitrophenol	0.025	U	mg/L	EPA 8270		08/27 09/03	G/
Dibenzofuran	0.025	U	mg/L	EPA 8270		08/27 09/03	G/
2,4-Dinitrotoluene	0.025	U	mg/L	EPA 8270		08/27 09/03	G1
Diethylphthalate	0.025	U	mg/L	EPA 8270		08/27 09/03	GV.
4-Chlorophenyl-Phenylet	0.025	U	mg/L	EPA 8270		08/27 09/03	G١
Fluorene	0.025	U	mg/L	EPA 8270		08/27 09/03	G/
4-Nitroaniline	0.025	U	mg/L	EPA 8270		08/27 09/03	G/
4,6-Dinitro-2-Methylphe	0.025	U	mg/L	EPA 8270		08/27 09/03	G١
n-Nitrosodiphenylamine	0.025	U	mg/L	EPA 8270		08/27 09/03	
4-Bromophenyl-Phenyleth	0.025	U	mg/L	EPA 8270		<del>0</del> 8/27 09/03	G۷
Hexachlorobenzene	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
Pentachlorophenol			mg/L 🥵	EPA 8270		08/27 09/03	GV
Phenanthrene	0.025	Ü	mg/L	EPA 8270		08/27 09/03	GV
Anthracene	0,025	U	mg/L	EPA 8270		08/27 09/03	GV
di-n-Butylphthalate	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
Fluoranthene	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
Pyrene	0.025	Ü	mg/L	EPA 8270		08/27 09/03	GV
Butylbenzylphthalate	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
3,3-Dichlorobenzidine	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
Benzo(a)Anthracene	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
Chrysene	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
bis(2-Ethylhexyl)Phthal di-n-Octylphthalate	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
Benzo(b)Fluoranthene	0.025	U	mg/L	EPA 8270		08/27 09/03	GV
Benzo(k)Fluoranthene	0.025	ប	mg/L	EPA 8270		08/27 09/03	·GV
Benzo(a)Pyrene	0.025 0.025	U U	mg/L	EPA 8270		08/27 09/03	GV
Indeno(1,2,3-cd)Pyrene	0.025	Ü	mg/L	EPA 8270		08/27 09/03	GV
Dibenz(a,h)Anthracene			mg/L	EPA 8270		08/27 09/03	GV
Benzo(g,h,i)Perylene	0.025		mg/L	EPA 8270		08/27 09/03	GV
benzo(g,n,1)i eryrene	0.023	U	mg/L	EPA 8270		08/27 09/03	GV
Total Metals Analysis							
ICP Screen, ICF					2/2		
Aluminum	0.1	บ	mg/L	EPA	n/a	00/20 00/20	מ מ
Antimony	0.1	บ	mg/L mg/L	EPA 6010		08/28 08/30	DLG
Arsenic	0.1	ប	mg/L	EPA 6010 EPA 6010		08/28 08/30 08/28 08/30	DLG
Barium	0.05	Ü	mg/L	EPA 6010		08/28 08/30	DLG DLG
Beryllium	0.05	Ü	mg/L	EPA 6010		08/28 08/30	DLG
Cadmium	0.05	Ū	mg/L	EPA 6010		08/28 08/30	DLG
Calcium	0.2	Ŭ	mg/L	EPA 6010		08/28 08/30	DLG
Chromium	0.05	Ü	mg/L	EPA 6010		08/28 08/30	DLG
Cobalt	0.1	บ	mg/L	EPA 6010	_	08/28 08/30	DLG
Copper	0.05	Ŭ	mg/L	EPA 6010	•	08/28 08/30	DLG
Iron	0.1	U	mg/L	EPA _6010		08/28 08/30	DLG
Lead	0.1	Ū	mg/L	EPA 6010		08/28 08/30	DLG
•			J. =				



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS Chemlab Ref.# 5633 B STREET :93.4302-10 ANCHORAGE, AK 99518 Client Sample ID :BTR-EB-04 TEL: (907) 562-2343 FAX: (907) 561-5301 Matrix :WATER Magnesium 0.2 U mg/L EPA 6010 08/28 08/30 DL Manganese 0.05 U mg/L **EPA** 6010 08/28 08/30 DL Molybdenum 0.05 U mg/L **EPA** 6010 08/28 08/30 DL Nickel 0.05 U mg/L **EPA** 6010 08/28 08/30 DL Potassium 5.0 U mg/L EPA 6010 08/28 08/30 DL Selenium 0.1 U mg/L EPA 6010 08/28 08/30 DL Silver 0.05 U mg/L EPA 6010 08/28 08/30 DL Sodium 0.25 U mg/L **EPA** 6010 08/28 08/30 DL Thallium 0.0050 U mg/L EPA 7841 08/28 08/30 KA Vanadium 0.05 U mg/L **EPA** 6010 08/28 08/30 DL Zinc 0.05 U mg/L EPA 6010 08/28 08/30 DL TOC, Nonpurgable EPA 9060 n/a ...TOC Range 5.0-5.0 mg/L EPA 9060 08/31 CM ...TOC Concentration 5.0 U mg/L **EPA** 9060 08/31

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

CMI

LT = Less Than GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above

See Sample Remarks Above ,



REPORT of ANALYSIS

ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908

Chemlab Ref.# :93.4302-12

Client Sample ID :BTR-EB-04 DUPLICATE

Matrix

PWSID

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

:DEW LINE

:BARTER

:RAY MORRIS

:UA

WORK Order

:70001

Report Completed :09/28/93 Collected

:08/20/93 @ 18:00 hr

Received :08/24/93 @ 12:00 hr Technical Director: STEPHEN Ç. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

FOR RSDY CALCULATIONS, PLEASE SEE QC SUMMARY SHEETS. FOR SPIKE DUPLICATE

8260, SEE WO# 93.4303-8.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Total Metals Analysis ICP Screen, ICF Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc TOC, Nonpurgable	0.1 0.1 0.05 0.05 0.05 0.05 0.1 0.1 0.2 0.05 0.05 0.05 0.05 0.05 0.05	טטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטטט	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010	n/a	08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28	08/30 08/30 08/30 08/30 08/30 08/30 08/30	DLC DLC DLC DLC DLC DLC DLC DLC DLC DLC
TOC Range TOC Concentration	5.0-5.0 5.0	U U	mg/L mg/L	EPA 9060 EPA 9060 EPA 9060	n/a		08/31 08/31	CMR CMR

See Special Instructions Above

See Sample Remarks Above

0 = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-11

Client Sample ID :BTR-EB-04 SPIKE

Matrix

PWSID

:WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Project Name Project#

:DEW LINE :BARTER :UA

WORK Order

:70001

Report Completed :09/28/93 Collected

:08/20/93

@ 18:00 hrs :08/24/93 @ 12:00 hrs

Received Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. RECOVERIES AND RSD, PLEASE REFER TO QC SUMMARY SHEETS. FOR 8260 SPIKE

8270: FOR SPIKE

SEE WO# 93.4303-7.

 Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Semivolatile Organics				EPA 8270				
Phenol	0.124		mg/L	EPA 8270		08-/27	09/03	·.
bis(2-Chloroethyl)ether	0.040	U	mg/L	EPA 8270			09/03	GV GV
2-Chlorophenol	0.161		mg/L	EPA 8270			09/03	G <b>V</b> G <b>V</b>
1,3-Dichlorobenzene	0.010	U	mg/L	EPA 8270			09/03	G <b>V</b>
1,4-Dichlorobenzene	0.151		mg/L	EPA 8270			09/03	GV GV
Benzyl Alcohol	0.040	U	mg/L	EPA 8270			09/03	
1,2-Dichlorobenzene	0.040	U	mg/L	EPA 8270			09/03	
2-Methylphenol	0.040	U	mg/L	EPA 8270			09/03	σV
bis(2-Chloroisopropyl)e	0.040	U	mg/L	EPA 8270			09/03	GV GV
4-Methylphenol	0.040	U	mg/L	EPA 8270			09/03	GV GV
n-Nitroso-di-n-Propylam	0.194		mg/L	EPA 8270			09/03	G <b>V</b>
Hexachloroethane	0.040	U	mg/L	EPA 8270			09/03	G <b>V</b>
Nitrobenzene	0.040	U	mg/L	EPA 8270			09/03	G <b>V</b>
Isophorone	0.040	U	mg/L	EPA 8270			09/03	G <b>V</b>
2-Nitrophenol	0.040	U	mg/L	EPA 8270			09/03	GV
2,4-Dimethylphenol	0.040	Ü	mg/L	EPA 8270			09/03	GV
Benzoic Acid	0.040	U	mg/L	EPA 8270			09/03	GΫ
bis(2-Chloroethoxy)Meth	0.040	U	mg/L	EPA 8270			09/03	GV
2,4-Dichlorophenol	0.040	U	mg/L	EPA 8270			09/03	G <b>V</b>
1,2,4-Trichlorobenzene	0.182		mg/L	EPA 8270			09/03	GΫ
Naphthalene	0.040	U	mg/L	EPA 8270			09/03	GΫ
4-Chloroaniline	0.040	U	mg/L	EPA 8270			09/03	ĞV
Hexachlorobutadiene	0.040	U	mg/L	EPA 8270		08/27		GV
4-Chloro-3-Methylphenol	0.188		mg/L	EPA 8270			09/03	GV
2-Methylnaphthalene	0.040	U	mg/L	EPA 8270			09/03	GV
Hexachlorocyclopentadie	0.040	U	mg/L	EPA 8270			09/03	GV
2,4,6-Trichlorophenol	0.040	Ü	mg/L	EPA 8270		08/27	•	GV
2,4,5-Trichlorophenol	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2-Chloronaphthalene 2-Nitroaniline	0.040	Ü	mg/L	EPA 8270		08/27	09/03	GΫ
Dimethylphthalate	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
Acenaphthylene	0.040	U	mg/L	EPA 8270		08/27	09/03	GV
2,6-Dinitrotoluene	0.040	U	mg/L	EPA 8270		08/27		GV
3-Nitroaniline	0.040	U	mg/L	EPA 8270		08/27		G <b>V</b>
Acenaphthene	0.040	U	mg/L	EPA 8270		08/27		<b>A</b>
	0.189		mg/L	EPA 8270	1	08/27	09/03	



ENVIRONMENTAL LABORATORY SERVICES

6 NOE 1908		DEDODE	6				
chemlab Ref.# :93.4302-11 Client Sample ID :BTR-EB-04 Matrix :WATER	SPIKE	REPORT	of ANA	LYSIS	ANC	5633 B STRE CHORAGE, AK 99 TEL: (907) 562-2 FAX: (907) 561-5	9518 2343
2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate 4-Chlorophenyl-Phenylet Fluorene 4-Nitroaniline 4,6-Dinitro-2-Methylphe n-Nitrosodiphenylamine 4-Bromophenyl-Phenyleth Hexachlorobenzene Pentachlorophenol Phenanthrene Anthracene di-n-Butylphthalate Fluoranthene Pyrene Butylbenzylphthalate 3,3-Dichlorobenzidine Benzo(a)Anthracene Chrysene bis(2-Ethylhexyl)Phthal li-n-Octylphthalate Benzo(b)Fluoranthene Benzo(a)Pyrene Indeno(1,2,3-cd)Pyrene Dibenz(a,h)Anthracene Benzo(g,h,i)Perylene	0.040 0.117 0.040 0.189 0.040 0.040 0.040 0.040 0.040 0.040 0.171 0.040 0.181 0.040 0.191 0.040 0.040 0.040 0.040 0.040 0.040 0.040 0.040 0.040 0.040 0.040		ng/L ng/L ng/L ng/L ng/L ng/L ng/L ng/L	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27	09/03 09/03 09/03 09/03 09/03 09/03 09/03 09/03 09/03 09/03	GV GV GV GV GV GV GV GV GV GV GV GV GV G
Total Metals Analysis ICP Screen, ICF Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Potassium Selenium	1.02 0.86 0.98 1.02 0.38 0.49 9.7 1.00 0.98 0.99 0.96 9.8 1.0 0.99 0.99	mo mo mo mo mo mo mo mo mo mo mo mo mo m	9/L 9/L 9/L 9/L 9/L 9/L 9/L 9/L 9/L 9/L	EPA 8270  EPA EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010	n/a 08/28 08/28 08/28 08/28	08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D 08/30 D	OLG DLG DLG DLG DLG DLG DLG DLG DLG DLG D



ENVIRONMENTAL LABORATORY SERVICES

(	Chemlab Ref.# :93.4302- Client Sample ID :BTR-EB-0 Matrix :WATER	11	REPORT of ANA	LYSIS		5633 B ST ANCHORAGE, AK TEL: (907) 562 FAX: (907) 563	99518 2-2343
	Silver Sodium Thallium Vanadium Zinc	0.16 10.6 0.018 0.94 0.94	mg/L mg/L mg/L mg/L mg/L	EPA 6010 EPA 6010 EPA 7841 EPA 6010 EPA 6010		08/28 08/30 08/28 08/30 08/28 08/30 08/28 08/30 08/28 08/30	DLG DLG KAW DLG DLG
	TOC, NonpurgableTOC RangeTOC Concentration	14.7-15.5 15.1	mg/L mg/L	EPA 9060 EPA 9060 EPA 9060	n/a	08/31 08/31	CMR CMR

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not AnalyzedLT = Less Than

GT = Greater Than



SGS Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4302-14

Client Sample ID :BTR-EB-04 SPIKE DUPLICATE

Matrix

:WATER

:ICF KAISER ENGINEERING

Ordered By Project Name

Client Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

WORK Order

Received

:70001

Report Completed Collected

:09/28/93 :08/20/93

0 18:00 :08/24/93 @ 12:00 hı

5633 B STREE

ANCHORAGE, AK 9951 TEL: (907) 562-234

FAX: (907) 561-530

Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA. FOR QC,

CALCULATIONS, SEE QC SUMMARY.

Parameter	QC Results Qual	Units Method	Allowable Ex Limits Da		Ini
Semivolatile Organics Phenol bis(2-Chloroethyl)ethe 2-Chlorophenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene Benzyl Alcohol 1,2-Dichlorobenzene 2-Methylphenol bis(2-Chloroisopropyl) 4-Methylphenol n-Nitroso-di-n-Propylatexachloroethane Nitrobenzene Isophorone 2-Nitrophenol 2,4-Dimethylphenol Benzoic Acid bis(2-Chloroethoxy)Met 2,4-Dichlorophenol 1,2,4-Trichlorobenzene Naphthalene 4-Chloroaniline Hexachlorobutadiene 4-Chloro-3-Methylphenol 2,4,5-Trichlorophenol 2,4,5-Trichlorophenol 2,4,5-Trichlorophenol 2,4,5-Trichlorophenol 2,4,5-Trichlorophenol 2,6-Dinitroaniline Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene 3-Nitroaniline Acenaphthene 2,4-Dinitrophenol	0.091 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U	Units Method  EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270  mg/L EPA 8270	Limits Date		Ini G G G G G G G G G G G G G G G G G G G
	•		33, 2	,	<b>U</b> •



ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.#

REPORT of ANALYSIS :93.4302-14 Client Sample ID :BTR-EB-04 SPIKE DUPLICATE

מיטית געו.

5633 B STREET TEL: (907) 562-2340

4-Nitrophenol       0.060       mg/L       EPA 8270       08/27 09/04       0         Dibenzofuran       0.037       U       mg/L       EPA 8270       08/27 09/04       0         2,4-Dinitrotoluene       0.257       mg/L       EPA 8270       08/27 09/04       0         Diethylphthalate       0.037       U       mg/L       EPA 8270       08/27 09/04       0         4-Chlorophenyl-Phenylet       0.037       U       mg/L       EPA 8270       08/27 09/04       0         Fluorene       0.037       U       mg/L       EPA 8270       08/27 09/04       0         4-Nitroaniline       0.037       U       mg/L       EPA 8270       08/27 09/04       0         4-6-Dinitro-2-Methylphe       0.037       U       mg/L       EPA 8270       08/27 09/04       0         4-Bromophenyl-Phenyleth       0.037       U       mg/L       EPA 8270       08/27 09/04       0         Hexachlorobenzene       0.037       U       mg/L       EPA 8270       08/27 09/04       0         Pentachlorophenol       0.002       J       mg/L       EPA 8270       08/27 09/04       0         Anthracene       0.037       U       mg/L       EPA 8270 </th <th>natrix :WATER</th> <th></th> <th></th> <th></th> <th>FAX: (907) 561-530:</th>	natrix :WATER				FAX: (907) 561-530:
	Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate 4-Chlorophenyl-Phenylet Fluorene 4-Nitroaniline 4,6-Dinitro-2-Methylphe n-Nitrosodiphenylamine 4-Bromophenyl-Phenyleth Hexachlorobenzene Pentachlorophenol Phenanthrene Anthracene di-n-Butylphthalate Fluoranthene Pyrene Butylbenzylphthalate 3,3-Dichlorobenzidine Benzo(a)Anthracene Chrysene bis(2-Ethylhexyl)Phthal di-n-Octylphthalate Benzo(b)Fluoranthene Benzo(a)Pyrene Indeno(1,2,3-cd)Pyrene Dibenz(a,h)Anthracene	0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U 0.037 U	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04 08/27 09/04

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than GT = Greater Than



See Special Instructions Above



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4303-5 Client Sample ID :BTR-EB-05 Matrix :WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

@ 14:30 hr:

Client Name

PWSID

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

:DEW LINE :BARTER

:RAY MORRIS

:UA

WORK Order :70013

Report Completed :09/30/93

Collected :08/21/93 Received

:08/24/93 @ 12:00 hr: Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMA AND PETER M.G.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWI
Bromobenzene	0.0010	U	mg/L	EPA 8260			09/02	KWI
Bromochloromethane	0.0010	U	mg/L	EPA 8260			09/02	KWI
Bromodichloromethane	0.0010	U	mg/L	EPA 8260			09/02	KWI
Bromoform	0.0010	U	mg/L	EPA 8260			09/02	KWI
Bromomethane	0.0010	U	mg/L	EPA 8260			09/02	KWI
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		•	09/02	KWI
sec-Butylbenzene	0.0010	U	mg/L	EPA 8260			09/02	KWr
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260			09/02	KWM
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chlorobenzene	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chloroethane	0.0010	U	mg/L	EPA 8260			09/02	KWE
Chloroform	0.0010	U	mg/L	EPA 8260			09/02	KWM
Chloromethane	0.0010	U	mg/L	EPA 8260		09/02		KWN
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02		
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		09/02		Kw:
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		09/02		KWM
12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		09/02		KWM
Dibromomethane	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,1-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloroethane	0.0032	14.4	mg/L			09/02	09/02	KWM
1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
cis-1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
trans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
1,3-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
2,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/02		KWM
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/02		KWM
Ethylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
Hexachlorobutadiene	0.0010	Ü	mg/L	EPA 8260		09/02	09/02	KWM
Isopropylbenzene	0.0010	U	mg/L	EPA 8260		09/02	09/02	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/02		KWM
T .								



REPORT of ANALYSIS

5633 B STREET

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ENVIRONMENTAL LABORATORY SERVICES

ANCHORAGE, AK 995 :93.4303-5 Chemlab Ref.# TEL: (907) 562-23 Client Sample ID :BTR-EB-05 FAX: (907) 561-53 :WATER Matrix 09/02 09/02 KWI ...acc0.0029 ∴ mg/L EPA 8260 *Methylene Chloride KW1 09/02 09/02 0.0010 U mg/L EPA 8260 Napthalene KWł 09/02 09/02 0.0010 U mg/L EPA 8260 n-Propylbenzene KWN 09/02 09/02 U mg/L EPA 8260 0.0010 Styrene KWI 09/02 09/02 0.0010 U ma/L EPA 8260 1112-Tetrachloroethane KWh 09/02 09/02 0.0010 H mg/L EPA 8260 1122-Tetrachloroethane KWM 09/02 09/02 EPA 8260 U mg/L Tetrachloroethene 0.0010 09/02 09/02 KWM EPA 8260 0.0023 mg/L i 19 Toluene KWM 09/02 09/02 U mg/L EPA 8260 0.0010 4,2,3-Trichlorobenzene KWM. 09/02 09/02 EPA 8260 0.0010 U mg/L 1,2,4-Trichlorobenzene KWY. 09/02 09/02 0.0010 U EPA 8260 mg/L 1,1,1-Trichloroethane KWM 09/02 09/02 U EPA 8260 0.0010 mg/L 1,1,2-Trichloroethane 09/02 09/02 KWM EPA 8260 0.0010 U mg/L Trichloroethene KWM 09/02 09/02 EPA 8260 0.0010 H mq/L Trichlorofluoromethane 09/02 09/02 KWM EPA 8260 0.0010 11 mg/L 1,2,3-Trichloropropane 09/02 09/02 KWM EPA 8260 0.0010 U mg/L 1,2,4-Trimethylbenzene KWM 09/02 09/02 EPA 8260 U mg/L 0.0010 1,3,5-Trimethylbenzene KWM 09/02 09/02 EPA 8260 0.0010 U mg/L Vinyl Chloride KWM 09/02 09/02 EPA 8260 U mg/L 0.0010 p+m-Xylene KWM 09/02 09/02 **EPA 8260** U mg/L 0.0010 o-Xylene EPA 8270 Semivolatile Organics MTT 08/27 08/29 0.011 U mg/L EPA 8270 Phenol MTT 08/27 08/29 0.011 U mg/L EPA 8270 bis(2-Chloroethyl)ether 08/27 08/29 EPA 8270 0.011 U mq/L 2-Chlorophenol 08/27 08/29 EPA 8270 0.011 U mg/L 1.3-Dichlorobenzene 08/27 08/29 EPA 8270 0.011 П mg/L 1.4-Dichlorobenzene 08/27 08/29 MTT EPA 8270 U mg/L Benzyl Alcohol 0.011 MTT 08/27 08/29 EPA 8270 U 0.011 mg/L 1,2-Dichlorobenzene MTT 08/27 08/29 EPA 8270 U 0.011 mg/L 2-Methylphenol 08/27 08/29 MTT EPA 8270 U 0.011 mg/L bis(2-Chloroisopropyl)e MTT 08/27 08/29 EPA 8270 U 0.011 mg/L 4-Methylphenol MTT 08/27 08/29 EPA 8270 U 0.011 mg/L n-Nitroso-di-n-Propylam MTT 08/27 08/29 EPA 8270 0.011 U mg/L Hexachloroethane MTT 08/27 08/29 U EPA 8270 0.011 mg/L Nitrobenzene MTT 08/27 08/29 EPA 8270 0.011 U mq/L Isophorone MTT 08/27 08/29 0.011 U mg/L EPA 8270 2-Nitrophenol 08/27 08/29 MTT EPA 8270 0.011 U mg/L 2.4-Dimethylphenol 08/27 08/29 MTT 0.011 EPA 8270 U mg/L Benzoic Acid MTT 08/27 08/29 0.011 EPA 8270 U bis(2-Chloroethoxy)Meth mg/L MTT 08/27 08/29 EPA 8270 U 0.011 2,4-Dichlorophenol mg/L 08/27 08/29 MTT EPA 8270 0.011 U mg/L 1,2,4-Trichlorobenzene MTT 08/27 08/29 **EPA 8270** 0.011 U mg/L Naphthalene MTT 08/27 08/29 EPA 8270 0.011 U mg/L 4-Chloroaniline MTT 08/27 08/29 EPA 8270 0.011 H mq/L Hexachlorobutadiene MTT 08/27 08/29 0.011 U mg/L EPA 8270 4-Chloro-3-Methylphenol 08/27 08/29 MTT 0.011 U mg/L **EPA 8270** 2-Methylnaphthalene 08/27 08/29 TIM EPA 8270 0.011 11 mg/L Hexachlorocyclopentadie 08/27 08/29 MTT EPA 8270 2,4,6-Trichlorophenol 0.011 П mg/L MTT 08/27 08/29 EPA 8270 2,4,5-Trichlorophenol 0.011 П mq/L 08/27 08/29 0.011 11 mq/L EPA 8270 2-Chloronaphthalene



Member of the SGS Group (Société Générale de Surveillance)

### ENVIRONMENTAL LABORATORY SERVICES

COMMERCIAL TESTING & ENGINEERING CO.

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	REPORT of ANALY	SIS		5633 B STREET
themlab Ref.# :93.4303-5 Client Sample ID :BTR-EB-05	VALIDATION GH (COMMENT)	MUFIR	τε	DRAGE, AK 99518 EL: (907) 562-2343 AX: (907) 561-5301
2-Nitroaniline Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene 3-Nitroaniline Acenaphthene 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate 4-Chlorophenyl-Phenylet Fluorene 4-Nitroaniline 4,6-Dinitro-2-Methylphe n-Nitrosodiphenylamine 4-Bromophenyl-Phenyleth Hexachlorobenzene Pentachlorophenol Phenanthrene Anthracene di-n-Butylphthalate Fluoranthene Pyrene Butylbenzylphthalate 3,3-Dichlorobenzidine Benzo(a)Anthracene Chrysene bis(2-Ethylhexyl)Phthal di-n-Octylphthalate Benzo(b)Fluoranthene Benzo(a)Pyrene Indeno(1,2,3-cd)Pyrene Dibenz(a,h)Anthracene	0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L 0.011 U mg/L	EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270 EPA 8270	08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27 08/27	08/29 MTI 08/29 MTI 08/29 MTI 08/29 MTI 08/29 MTI 08/29 MTI 08/29 MTI 08/29 MTI 08/29 MTI 08/29 MTI
Benzo(g,h,i)Perylene  Total Metals Analysis ICP Screen, ICF Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead	0.011 U mg/L   0.1 U mg/L  0.1 U mg/L  0.1 U mg/L  0.05 U mg/L  0.05 U mg/L  0.05 U mg/L  0.05 U mg/L  0.05 U mg/L  0.05 U mg/L  0.1 U mg/L  0.1 U mg/L  0.1 U mg/L  0.1 U mg/L  0.1 U mg/L  0.1 U mg/L	EPA 8270  EPA EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010	n/a 08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28 08/28	8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL 8 08/30 DL

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ENVIRONMENTAL LABORATORY SERVICES

Chemlab Ref.# :93.4303-5 Client Sample ID :BTR-EB-05	* 15 D	SIS	ANC	5633 B STR CHORAGE, AK 9 TEL: (907) 562 FAX: (907) 561	.2.
Matrix :WATER  Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc	0.2 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L 0.05 U mg/L	EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 6010 EPA 7841 EPA 6010 EPA 6010	08/2 08/2 08/2 08/2 08/2 08/2 08/2	28 08/30 28 08/30 28 08/30 28 08/30 28 08/30 28 08/30 28 08/30 28 08/30 28 08/30 28 08/30	DLC DLC DLC DLC DLC DLC DLC DLC DLC DLC
TOC, NonpurgableTOC RangeTOC Concentration	5.0-5.0 U (M)mg/L 5.0 UJ (M)mg/L	EPA 9060 EPA 9060 EPA 9060	n/a	09/02 09/02	CMF CMF

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyze LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

Matrix

REPORT of ANALYSIS

Chemlab Ref.#

:93.4616-9 Client Sample ID :BTR-EB-07 :WATER

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

WORK Order :70612 Report Completed :10/28/93

Ordered By Project Name

:RAY MORRIS :DEW LINE :BARTER

Collected :09/02/93 @ 14:00 hrs

Project# PWSID :UA

Received :09/04/93 @ 11:00 hrs Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND/M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	A <b>nal</b> Date	Init
Volatile Organics				EPA 8260				
Benzene	0.0010	Ü	mg/L	EPA 8260		00 44 5		
Bromobenzene	0.0010	Ü	mg/L	EPA 8260			09/15	KWH
Bromochloromethane	0.0010	ŭ	mg/L	EPA 8260		09/15	09/15	KWM
Bromodichloromethane	0.0010	Ū	mg/L	EPA 8260			09/15	KWM
Bromoform	0.0010	Ü	mg/L	EPA 8260			09/15	KWH
Bromomethane	0.0010	Ü	mg/L	EPA 8260			09/15	KWM
n-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			09/15	KWM
s <b>ec</b> -Butylbenzene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
tert-Butylbenzne	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
Carbon Tetrachloride	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
Chlorobenzene	0.0010	ΰ	mg/L			09/15		KWM
Chloroethane	0.0010	Ü	mg/L	EPA 8260 EPA 8260		09/15		KWH
Chloroform	0.0010	Ü	mg/L			09/15		KWM
Chloromethane	0.0010	บ	mg/L	EPA 8260		09/15		KWH
2-Chlorotoluene	0.0010	บ	mg/L	EPA 8260		09/15		KWH
4-Chlorotoluene	0.0010	Ü		EPA 8260		09/15		KWM
Dibromochloromethane	0.0010	บ	mg/L	EPA 8260		09/15		KWM
12Dibromo3Chloropropane	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,2-Dibromoethane	0.0010	Ŭ	mg/L	EPA 8260		09/15		KWM
Dibromomethane	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,2-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,3-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,4-Dichlorobenzene	0.0010	-	mg/L	EPA 8260		09/15		KWM
Dichlorodifluoromethane	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,1-Dichloroethane	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
1,2-Dichloroethane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,1-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		09/15	09/15	KWM
cis-1,2-Dichloroethene		u	mg/L	EPA 8260		09/15	09/15	KWM
trans1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		09/15	09/15	KWM
1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		09/15	09/15	KWM
1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		09/15	09/15	KWM
2,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		09/15		KWH
1,1-Dichloropropene	0.0010	U	mg/L	EPA 8260		09/15		KWM
Ethylbenzene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
Hexachlorobutadiene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
Isopropylbenzene	0.0010	Ü	mg/L	EPA 8260		09/15		KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA 8260		09/15		KWM
Tachrohatrorneue	0.0010	U	mg/L	EPA 8260		09/15		KWM
							,	



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-9 Client Sample ID :BTR-EB-07

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

Matrix	:WATER					FAX: (907) 56	1-5301
Methylene C	Chloride	0.0083		mg/L	EPA 8260	09/15 09/15	KWM
Napthalene		0.0010	Ü	mg/L	EPA 8260	09/15 09/15	KWM
n-Propylben	izene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Styrene		0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
1112-Tetrac	hloroethane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
	:hloroethane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Tetrachloro	ethene	0.0010	Ü	mg/L	EPA 8260	09/15 09/15	KWM
Toluene		0.0017		mg/L	EPA 8260	09/15 09/15	KWM
1,2,3-Trich	lorobenzene	0.0010	Ŭ	mg/L	EPA 8260	09/15 09/15	KWM
	lorobenzene	0.0010	Ü	mg/L	EPA 8260	09/15 09/15	KWM
1,1,1-Trich		0.0010	Ü	mg/L	EPA 8260	09/15 09/15	KWM
1,1,2-Trich		0.0010	Ü	mg/L	EPA 8260	09/15 09/15	KWM
Trichloroet		0.0010	Ü	mg/L	EPA 8260	09/15 09/15	KWM
	uoromethane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
	loropropane	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
	thylbenzene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
	thylbenzene	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Vinyl Chlor	ide	0.0010	U	mg/L	EPA 8260	09/15 09/15	KWH
p+m-Xylene		0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
o-Xylene		0.0010	U	mg/L	EPA 8260	09/15 09/15	KWM
Hydrocarbon		0.200	U	mg/L	3 <b>510/</b> 3550/8100M	09/08 09/09	DBS
Hydrocarbon:	s VPH	0.020	Ü	mg/L	EPA 5030/8015M	09/10 09/10	

See Special Instructions Above

** See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

hemlab Ref.# Client Sample ID :BTR-EB-08

:93.4616-13

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Matrix Client Name

:WATER

WORK Order :70612

Ordered By

:ICF KAISER ENGINEERING :RAY MORRIS

Report Completed :10/28/93

Project Name Project# PWSID

:DEW LINE :BARTER :UA

Collected :09/03/93 @ 14:00 hrs. Received :09/04/93 @ 11:00 hrs.

Technical Director: STEPHEN, C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: JERRY M., PETER M.G., ROBERT T., AND M. LEMMA.

Hydrocarbons EPH	Paramet	er	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Note	Hydroca	irbons EPH	0.200	U	mg/L	3510/3550/8100M		00/00		
Volatile Organics   EPA 8260   Benzene	Hydroca	irbons VPH						09/08	09/09	
Berzene	Volatil	e Organics				EEL 0064			00, 20	
Bromochoromethane	Benzene	!	0.0010	f t	mæ /f					
Bromochloromethane	Bromobe	nzene								KWM
## Bromodichloromethane	Bromoch	loromethane		_						
Bromoform 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0.0010 U mg/L EPA 8260 09/15 09/15 (WM n-Buty) benzene 0	Bromodi	Chloromethane		•						KWM
Bromomethane	Bromofo	rm		_				09/15	09/15	KWM
Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description   Description	Bromome	thane		_						KWM
Sec_Butylbenzene	n-Butvl	benzene		_						KWH
tert-Butylbenzne         0.0010         U         mg/L         EPA         8260         09/15         09/15         KWH           Carbon Tetrachloride         0.0010         U         mg/L         EPA         8260         09/15         09/15         09/15         KWH           Chlorobenzene         0.0010         U         mg/L         EPA         8260         09/15         09/15         KWH           Chlorotorom         0.0010         U         mg/L         EPA         8260         09/15         09/15         09/15         KWH           Chlorotoluene         0.0010         U         mg/L         EPA         8260         09/15         09/15         09/15         KWH           2-Chlorotoluene         0.0010         U         mg/L         EPA         8260         09/15         09/15         KWH           4-Chlorotoluene         0.0010         U         mg/L         EPA         8260         09/15         09/15         KWH           4-Chlorotoluene         0.0010         U         mg/L         EPA         8260         09/15         09/15         KWH           1.2-Dibromoethane         0.0010         U         mg/L         EPA         8260         <	sec-But	vlhenzene		_						KWM
Carbon Tetrachloride	tert-Bu	tvlhenzne		•						KWM
Chlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Chloroform 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 2-Chlorotoluene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 4-Chlorotoluene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1-Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	Carbon	Tetrachloride		-						KWM
Chloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Chloroform 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 2-Chlorotoluene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 4-Chlorotoluene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Dibromochloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 12Dibromo3Chloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.2-Dibromoethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.2-Dibromoethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.2-Dibromoethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.4-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.4-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	Chlorob	enzene		_						KWM
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Chloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 2-Chlorotoluene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 4-Chlorotoluene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Dibromochloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dibromoethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dibromoethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dibromoethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Dibromomethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,4-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	Chlorof	orm		_						KWM
2-Chlorotoluene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 4-Chlorotoluene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM Dibromochloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 12Dibromo3Chloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,2-Dibromoethane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM Dibromomethane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,2-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,4-Dichloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,2-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 kWM				_						KWM
4-Chlorotoluene	2-Chlore	otoluene		_				09/15	09/15	KWM
Dibromochloromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.2Dibromo3Chloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.2-Dibromoethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Dibromomethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.4-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Dichlorodifluoromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.2-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1.3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	4-Chlor	otoluene		-				09/15	09/15	KWM
12Dibromo3Chloropropane	Dibromo	Thioromethana						09/15	09/15	KWM
1,2-Dibromoethane	12Dibror	mo3Chloropropos		-				09/15	09/15	KWM
Dibromomethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,4-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Dichlorodifluoromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 0.1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	1.2-Dib	Compet base		-				09/15	09/15	
1,2-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,4-Dichlorobenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Dichlorodifluoromethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Cis-1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM trans1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	Dibromor	nethana								
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1,4-Dichlorobenzene	1 3-Dict	Horobenzene								
Dichlorodifluoromethane	1 4-Dick	Horobenzene		_						
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1,2-Dichloroethane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM cis-1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM trans1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 2,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Ethylbenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	1 1-Dict	diriuoromethane								
1,1-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM 09/15 09/15 KWM	1 2-Dict	loroethane		_						
cis-1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM trans1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 2,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Ethylbenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	1 1-Dick	loroethane		-						
trans1,2-Dichloroethene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM  1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM  1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM  2,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM  1,1-Dichloropropene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM  1,1-Dichloropropene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM  Ethylbenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	Cis-1 2	moroetnene		_						
1,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 2,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Ethylbenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	tranci 3	Dictioroethene		-						
1,3-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 2,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Ethylbenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	1 2-Dich	-nicurologiueue		_						
2,2-Dichloropropane 0.0010 U mg/L EPA 8260 09/15 09/15 KWM 1,1-Dichloropropene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Ethylbenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	1 3-D3-2	rorobrobane		-						
1,1-Dichloropropene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM Ethylbenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	2 2-D:	Loropropane		_		EPA 8260				
Ethylbenzene 0.0010 U mg/L EPA 8260 09/15 09/15 KWM	1 1-D3-5	Loropropane		_				09/15	09/15	
	**********	rotoblobeve		_						
	FriiATDGU	zene	0.0010	U	mg/L	EPA 8260				



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4616-13 Client Sample ID :BTR-EB-08

Matrix :WATER

5633 B STREET ANCHORAGE. AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

	,							
Hexachlorobutadiene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
Isopropylbenzene	0.0010	Ü	mg/L	EPA	8260	09/15	09/15	KWM
p-Isopropyltoluene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
Methylene Chloride	0.0066		mg/L	EPA	8260		09/15	KWM
Napthalene	0.0010	U	mg/L	EPA	8260		09/15	KWM
n-Propylbenzene	0.0010	U	mg/L	EPA	8260		09/15	KWM
Styrene	0.0010	ប	mg/L		8260	•	09/15	KWM
1112-Tetrachloroethane	0.0010	Ū	mg/L		8260	•	09/15	KWM
1122-Tetrachloroethane	0.0010	Ü	mg/L		8260		09/15	
Tetrachloroethene	0.0010	Ü	mg/L		8260		09/15	KWM
Toluene	0.0013	J	mg/L		8260			KWM
1,2,3-Trichlorobenzene	0.0010	U	mg/L		8260		09/15	KWM
1,2,4-Trichlorobenzene	0.0010	Ü	_				09/15	KWM
1,1,1-Trichloroethane	0.0010	_	mg/L		8260		09/15	KWM
1,1,2-Trichloroethane		U	mg/L		8260	09/15		KWM
Trichloroethene	0.0010	Ü	mg/L		8260	09/15		KWM
<del>-</del>	0.0010	U	mg/L ~		8260	09/15	-	KWM
Trichlorofluoromethane	0.0010	U	mg/L		8260	09/15	09/15	KWM
1,2,3-Trichloropropane	0.0010	Ü	mg/L		8260	09/15	09/15	KWH
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA	8 <b>260</b>	09/15	09/15	KWM
1,3,5-Trimethylbenzene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
Vinyl Chloride	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
p+m-Xylene	0.0010	U	mg/L	EPA	8260	09/15	09/15	KWM
o-Xylene	0.0010	U	mg/L	EPA	8260	09/15	• -	

UA = Unavailable

NA = Not Analyzed LT = Less Than

GT = Greater Than



See Special Instructions Above

^{**} See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemiab Ref.# Client Sample ID :BTR -SD09 TB Ø (

:93.4197-7

Matrix

:WATER

gut

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name Project#

: RAY MORRIS :DEW LINE :BARTER

PWSID

:UA

RUSH Order

:69752 :08/23/93 Report Completed

:08/16/93 Collected

@ 15:00 hrs. :08/19/93 @ 18:45 hrs. Received

Technical Director: STEPHEN C. EDE

Released By : Stylen

Sample Remarks: SAMPLE COLLECTED BY: UA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0010	บ	mg/L	EPA 8010	,	08/20	08/20	SGM
1,1 Dichloroethylene	0.0010	Ü	mg/L	EPA 8010		08/20	08/20	SGM
1,1 Dichloroethane	0.0010	Ü	mg/L	EPA 8010		08/20	08/20	SGM
Chloroform	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Carbontetrachloride	0.0010	U	mg/L	EPA 8010			08/20	SGM
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/20	08/20	SGM
Trichloroethylene	0.0010	U	mg/L	EPA 8010			08/20	SGM
1,1,2 Trichloroethane	0.0010	U	mg/L	EPA 8010			08/20	SGM
<u>Pébromochloromethane</u>	0.0010	U	mg/L	EPA 8010			08/20	SGM
rachloroethylene	0.0010	ប	mg/L	EPA 8010			08/20	SGM
cilorobenzene	0.0010	บ	mg/L	EPA 8010			08/20	SGM
Trichlorofluoromethane	0.0010	ט	mg/L	EPA 8010			08/20	SGM
Trans12Dichloroethylene	0.0010	U	mg/L	EPA 8010			08/20	SGM
1,2 Dichloroethane	0.0010	U	mg/L	EPA 8010			08/20	SGM
1,1,1 Trichoroethane	0.0010	บ	mg/L	EPA 8010			08/20	SGM
Bromodichloromethane	0.0010	U	mg/L	EPA 8010			08/20	SGM
Transi,3Dichloropropene	0.0010	U	mg/L	EPA 8010			08/20	SGM
cis-1,3-Dichloropropene	0.0010	U	mg/L	EPA 8010			08/20	SGM
Bromoform	0.0010	U	mg/L	EPA 8010			08/20	SGM
1122-Tetrachloroethane	0.0010	U	mg/L	EPA 8010			08/20	SGM
Chloromethane	0.0010	U	mg/L	EPA 8010			08/20	SGM
Bromoethane	0.0010	U	mg/L	EPA 8010			08/20	SGM
Vinyl Chloride	0.0010	U	mg/L	EPA 8010			08/20	SGM
Chloroethane	0.0010	U	mg/L	EPA 8010			08/20	SGM
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010			08/20	SGM
2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010			08/20 08/20	S <b>GM</b> S <b>GM</b>
1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8010			08/20	SGM
1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8010		00/20	00/20	SGH
Aromatic Volatiles		••	17	EPA 8020		00/20	08/20	SGM
Benzene	0.0010	U	mg/L	EPA 8020			08/20	SGM
Toluene	0.0010	Ü	mg/L	EPA 8020			08/20	SGM
Ethylbenzene	0.0010		mg/L	EPA 8020			08/20	SGM
Chlorobenzene	0.0010		mg/L	EPA 8020			08/20	SGM
p & m Xylene	0.0010		mg/L	EPA 8020 EPA 8020			08/20	SGM
o-Xylene	0.0010		mg/L	EPA 8020 EPA 8020			08/20	SGM
1,4 Dichlorobenzene	0.0010		mg/L	EPA 8020 EPA 8020			08/20	SGM
Dichlorobenzene	0.0010	U	mg/L	EFN OUZU		00/20	00/20	5011



ENVIRONMENTAL LABORATORY SERVICES

REPORT OF ANALYSIS

Chemlab Ref.#

:93.4197-7

Client Sample ID :BTR SD08 TBØ

:WATER Matrix

1.2 Dichlorobenzene

Smf 11.30 94

0.0010 U mg/L

EPA 8020

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

08/20 08/20 SGM

See Special Instructions Above

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than

GT = Greater Than



Member of the SGS Group (Société Générale de Surveillance)



ENVIRONMENTAL LABORATORY SERVICES

REPORT of ANALYSIS

Chemlab Ref.# :93.4173-10

Client Sample ID :BTR SD08 TBp( Matrix :WATER Sp. 199

ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Client Name Ordered By

:ICF KAISER ENGINEERING

:RAY MORRIS :DEW LINE

Project Name Project# **PWSID** 

:BARTER :UA

WORK Order Report Completed

:69700 :09/17/93

Collected

:08/16/93 @ 15:00 hrs

ments

5633 B STREET

Received :08/19/93 @ 10:50 hrs Technical Director: STEPHEN C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: UA.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260			<del></del>	
	Benzene	0.0010	U	mg/L	EPA 8260		08/21	08/21	KWY
	Bromobenzene	0.0010	U	mg/L	EPA 8260			08/21	KWM
	Bromochloromethane	0.0010	บ	mg/L	EPA 8260			08/21	KWM
	Bromodichloromethane	0.0010	U	mg/L	EPA 8260			08/21	KWM
	Bromoform	0.0010	U	mg/L	EPA 8260			08/21	KWM
	Bromomethane	0.0010	U	mg/L	EPA 8260			08/21	KWM
	n-Butylbenzene	0.0010	U	mg/L	EPA 8260			08/21	KWM
	sec-Butylbenzene	0.0010	U	mg/L	EPA 8260			08/21	KWM
	tert-Butylbenzne	0.0010	U	mg/L	EPA 8260			08/21	KWM
	Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260			08/21	KWM
	Chlorobenzene	0.0010	U	mg/L	EPA 8260			08/21	KWM
	Chloroethane	0.0010	U	mg/L	EPA 8260		08/21		KWM
	Chloroform	0.0010	U	mg/L	EPA 8260			08/21	KWM
	Chloromethane	0.0010	บ	mg/L	EPA 8260			08/21	KWM
	2-Chlorotoluene	0.0010	U	mg/L	EPA 8260			08/21	KWM
	4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/21		KWM
	Dibromochloromethane	0.0010	U	mg/L	EPA 8260	-	08/21		KWM
	12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260			08/21	KWM
	1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260			08/21	KWM
	Dibromomethane	0.0010	U	mg/L	EPA 8260		08/21		KWM
	1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/21		KWM
	1,3-Dichlorobenzene	0.0010	Ū	mg/L	EPA 8260		08/21		KWM
	1,4-Dichlorobenzene	0.0010	ប	mg/L	EPA 8260		08/21		KWM
	Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/21		KWM
	1,1-Dichloroethane	0.0010	Ü	mg/L	EPA 8260		08/21		KWM
	1,2-Dichloroethane	0.0010	Ū	mg/L	EPA 8260		08/21		KWM
	1,1-Dichloroethene	0.0010	Ū	mg/L	EPA 8260		08/21		KWM
	cis-1,2-Dichloroethene	0.0010	Ū	mg/L	EPA 8260		08/21		KWM
	trans1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/21		KWM
	1,2-Dichloropropane	0.0010	Ū	mg/L	EPA 8260		08/21		KWM
	1,3-Dichloropropane	0.0010	Ū	mg/L	EPA 8260		08/21		KWM
	2,2-Dichloropropane	0.0010	Ŭ	mg/L	EPA 8260		08/21		KWM
	1,1-Dichloropropene	0.0010	Ū	mg/L	EPA 8260		08/21		KWM
	Ethylbenzene	0.0010	Ü	mg/L	EPA 8260		08/21		KWM
	Hexachlorobutadiene	0.0010	Ü	mg/L	EPA 8260		08/21		KWM
_	Isopropylbenzene	0.0010	ŭ	mg/L	EPA 8260		08/21		KWM
	p-Isopropyltoluene	0.0010	Ü	mg/L	EPA 8260		08/21	00/21	KWM
		, , , , , , ,	~		EL A 0200		(00/21	VO/ 21	L/MLI



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES



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Chemlab Ref. # :93.4173-10 Client Sample ID :BTR SD08 TBØ Matrix :WATER	REPORT OF ANALYS	5633 B ANCHORAGE, A TEL: (907)	562-2343
Methylene Chloride Napthalene n-Propylbenzene Styrene 1112-Tetrachloroethane 1122-Tetrachloroethane Tetrachloroethene Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1,2-Trichloroethane 1,1,2-Trichloroethane 1,2,3-Trichloropropane 1,2,4-Trimethylbenzene 1,2,4-Trimethylbenzene 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene 1,3,5-Trimethylbenzene Vinyl Chloride p+m-Xylene 0.000	0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E 0010 U mg/L E	PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 8260 PA 826	KW KW KW KW KW KW

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

08/21 08/21

KW

LT = Less Than GT = Greater Than



See Sample Remarks Above



ENVIRONMENTAL LABORATORY SERVICES

Tut.11.44

REPORT of ANALYSIS

nemlab Ref.#

:93.4199-13 lient Sample ID :BTR SD08 TB 02

Matrix

:WATER

5633 B STRE ANCHORAGE, AK 999

11 (907) 562-23 FAX (907) 561-53

Client Name

:ICF KAISER ENGINEERING

Ordered By Project Name

:RAY MORRIS :DEW LINE

Project# PWSID

:BARTER :UA

RUSH Order Report Completed

**:697**75

Collected

:08/24/93 :08/17/93

@ 10:00 h :08/19/93 0 18:45 h

Received

Technical Director: STEPHEN C. EDE
Released By:

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND ROBERT T.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	In:
Aromatic Volatiles								111.
Benzene	0.0010	U	<b>50.</b> /T	EPA 8020				
Toluene	0.0010	Ü	mg/L	EPA 8020		08/20	08/20	SC
Ethylbenzene	0.0010	Ü	mg/L mg/L	EPA 8020			08/20	se
Chlorobenzene	0.0010	Ŭ	mg/L	EPA 8020			08/20	SG
p & m Xylene	0.0010	Ü	mg/L	EPA 8020			08/20	SG
o-Xylene	0.0010	Ü	ing/L	EPA 8020			08/20	SG
1,4 Dichlorobenzene	0.0010	Ü	ng/L	EPA 8020			08/20	SG
1,3 Dichlorobenzene	0.0010	Ū	mg/L	EPA 8020 EPA 8020			08/20	SG
1,2 Dichlorobenzene	0.0010	Ü	mg/L	EPA 8020 EPA 8020			08/20	SG
			9/ 🚨	EFA 0020		08/20	08/2 <b>0</b>	SG.
Halogenated Volatile Or				EPA 8010				
Methylene Chloride	0.0010	U	mg/L	EPA 8010		00/20	00./20	00:
1,1 Dichloroethylene	0.0010	U	mg/L	EPA 8010		08/20 08/20		SGI SGI
1,1 Dichloroethane Chloroform	0.0010	บ	mg/L	EPA 8010		08/20		SGI
Carbontetrachloride	0.0010	U	mg/L	EPA 8010		08/20		SGi
1, 2 Dichloropropane	0.0010	U	mg/L	EPA 8010		08/20		SGI
Trichloroethylene	0.0010	U	mg/L	EPA 8010		08/20		SGì
1,1,2 Trichloroethane	0.0010	Ü	mg/L	EPA 8010		08/20		SGì
Dibromochloromethane	0.0010	Ŭ	mg/L	EPA 8010		08/20		SG!
Tetrachloroethylene	0.0010	Ü	mg/L	EPA 8010		08/20		1DS
Chlorobenzene	0.0010 0.0010	U	mg/L	EPA 8010		08/20		1DS
Trichlorofluoromethane	0.0010	U	mg/L	EPA 8010		08/20		SGF
Trans12Dichloroethylene	0.0010	U U	mg/L	EPA 8010		08/20	08/20	SGL
1,2 Dichloroethane	0.0010	Ü	mg/L	EPA 8010		08/20	08/20	SGM
1,1,1 Trichoroethane	0.0010	Ü	mg/L	EPA 8010		08/20		SGM
Bromodichloromethane	0.0010	Ü	mg/L mg/L	EPA 8010		08/20		SGM
Trans1,3Dichloropropene	0.0010	Ü	mg/L	EPA 8010		08/20		SGM
Cls-1,3-Dichloropropene	0.0010	Ü	mg/L	EPA 8010		08/20		SGM
Bromoform	0.0010	Ü	mg/L	EPA 8010		08/20		SGM
1122-Tetrachloroethane	0.0010	Ü	mg/L	EPA 8010 EPA 8010		08/20		SGM
Chloromethane	0.0010	U	mg/L	EPA 8010		08/20 (		SGM
Bromoethane	0.0010	Ū	mg/L	EPA 8010		08/20 (	-	SGM
Vinyl Chloride	0.0010	U	mg/L	EPA 8010		08/20 (		SGM SGM
Chloroethane	0.0010	U	mg/L	EPA 8010		08/20 ( 08/20 (		SGM
1,4 Dichlorobenzene	0.0010	U	mg/L	EPA 8010		08/20 C 08/20 C		SGM
2-Chloroethylvinylether	0.0010	U	mg/L	EPA 8010		08/20 C		SGM
					,	JU/ ZU U	10/ 20	5011



ENVIRONMENTAL LABORATORY SERVICES

94 12.194

REPORT of ANALYSIS &

emlab Ref.#

:93.4199-13

lient Sample ID :BTR SD00 TB Ø2 Matrix

:WATER

ANCHORAGE, AK 995 TEL: (907) 562-23-

FAX: (907) 561-53

S

S

1,3-Dichlorobenzene

0.0010

mg/L

**EPA** 8010

08/20 08/20

08/20 08/20

1,2-Dichlorobenzene

0.0010

mg/L

EPA 8010

See Special Instructions Above

** See Sample Remarks Above ' U = Undetected, Reported value is the practical quantification limit. ' D = Secondary dilution.

UA = Unavailable NA = Not Analyzed LT = Less Than

GT = Greater Than

Member of the SGS Group (Société Générale de Surveillance)



Matrix

PWSID

#### COMMERCIAL TESTING & ENGINEERING CO.

**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

Chemlab Ref.# Client Sample ID :BTR SD08 TB02

:93.4179-5

:WATER

:ICF KAISER ENGINEERING

Client Name Ordered By Project Name

:RAY MORRIS :DEW LINE Project# :BARTER

:UA

WORK Order Report Completed :09/20/93

:69712

Collected Received

:08/17/93 @ 10:00 hr: :08/19/93 @ 10:50 hr:

Technical Director: STEPHEN C. EDE

Released By : Motor

Sample Remarks: SAMPLE COLLECTED BY: M. LEMMON AND JERRY M.

	Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
	Volatile Organics				EPA 8260				
	Benzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWP
	Bromobenzene	0.0010	U	mg/L	EPA 8260		08/20		KWI
	Bromochloromethane	0.0010	บ	mg/L	EPA 8260		08/20		KWM
	Bromodichloromethane	0.0010	U	mg/L	EPA 8260		08/20		KWE
	Bromoform	0.0010	บ	mg/L	EPA 8260		08/20		KWE
	Bromomethane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20		KWB
_	sec-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/20		KWM
	Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260		08/20		KWM
	Chlorobenzene	0.0010	ប	mg/L	EPA 8260		08/20		KWM
	Chloroethane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	Chloroform	0.0010	U	mg/L	EPA 8260		08/20		KWM
	Chloromethane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
	4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWH
	12Dibromo3Chloropropane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWH
	1,2-Dibromoethane	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
	Dibromomethane	0.0010	U	mg/L	EPA 8260		08/20		KWH
	1,2-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20	08/20	KWM
	1,3-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	1,4-Dichlorobenzene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	Dichlorodifluoromethane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	1,1-Dichloroethane 1,2-Dichloroethane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	1,1-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/20		KWM
	cis-1,2-Dichloroethene	0.0010	U U	mg/L	EPA 8260		08/20		KWM
	trans1,2-Dichloroethene	0.0010 0.0010	U	mg/L	EPA 8260		08/20		KWM
	1,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/20		KWM
	1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	2,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	1,1-Dichloropropene	0.0010	บ	mg/L mg/L	EPA 8260		08/20		KWM
	Ethylbenzene	0.0010	Ü	mg/L	EPA 8260		08/20		KWM
	Hexachlorobutadiene	0.0010	บ	mg/L	EPA 8260 EPA 8260		08/20		KWM
	Isopropylbenzene	0.0010	บ	mg/L	EPA 8260		08/20		KWM
	p-Isopropyltoluene	0.0010	ប	mg/L	EPA 8260		08/20		KWM
	, r propyroozaciic	, 3.0010	J	mg/ L	ET.W 0700		_08/20	08/20	KWM



**ENVIRONMENTAL LABORATORY SERVICES** 

REPORT of ANALYSIS SEC

5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301

Chemlab Ref. * :93.4179-5 Client Sample ID :BTR SD08 TB 02

Matrix :WATER

Methylene Chloride	0.0010	U	mg/L	EPA 8260	08/20	08/20	KWI
Napthalene	0.0010	U	mg/L	EPA 8260		08/20	
n-Propylbenzene	0.0010	U	mg/L	EPA 8260			
Styrene	0.0010	U	mg/L	EPA 8260		08/20	_
1112-Tetrachloroethane	0.0010	Ū	mg/L	EPA 8260			
1122-Tetrachloroethane	0.0010	Ū	mg/L	EPA 8260		-	•
Tetrachloroethene	0.0010	Ū	ng/L	EPA 8260			
Toluene	0.0010	ŭ	mg/L	EPA 8260			
1,2,3-Trichlorobenzene	0.0010	บั	mg/L	EPA 8260			
1,2,4-Trichlorobenzene	0.0010	ŭ	ng/L	EPA 8260			
1,1,1-Trichloroethane	0.0010	ិប					
		_	mg/L	EPA 8260			
1,1,2-Trichloroethane	0.0010		mg/L	EPA 8260			
			mg/L	**************************************			
Trichlorofluoromethane	0.0010	·U	mg/L	EPA 8260			
1,2,3-Trichloropropene	0.0010	U	mg/L	<b>EPA</b> 8260			
1,2,4-Trimethylbenzene	0.0010	U	mg/L	EPA 8260	¥08/20	08/20	KW
1,3,5-Trimethylbenzene	0.0010	๊ับ	mg/L	EPA 8260	08/20	08/20	KWP
Vinyl Chloride	0.0010	U	mg/L	EPA 8260	*08/20	08/20	KWI
p+m-Xylene	0.0010	บ	mg/L	<b>EPA</b> 8260			KWP
o-Xylene	0.0010	U	mg/L	EPA 8260			KWK
= ,				·	,00, 10	15 T 7 T	

See Special Instructions Above

See Sample Remarks Above '

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable

NA ≥ Not Analyzed

- A ...

LT = Less Than GT = Greater Than



SGS Member of the SGS Group (Société Générale de Surveillance)



#### COMMERCIAL TESTING & ENGINEERING CO. ENVIRONMENTAL LABORATORY SERVICES

Chemiab Ref.#

grut 12.194 :93.4211-2

REPORT of ANALYSIS

5633 B STRE ANCHORAGE, AK 995

Client Sample ID :BTR LF03 TBP3

Matrix

:WATER

TEL: (907) 562-23 FAX: (907) 561-53

Client Name Ordered By

:ICF KAISER ENGINEERING

WORK Order :69838

Project Name Project#

:RAY MORRIS :DEW LINE :BARTER

Report Completed :09/09/93

PWSID

Collected Received

:08/10/93 @ 10:00 h :08/20/93 @ 11:30 h

:UA

Technical Director:STEPHEN,C. EDE

Released By :

Sample Remarks: SAMPLE COLLECTED BY: J.M. CONTAINER MARKED SAMPLED COLLECTION DATE AS

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	I
Volatile Organics Benzene				EPA 8260				
Bromobenzene	0.0010		mg/L	EPA 8260				
Bromochloromethane	0.0010		mg/L	EPA 8260		08/27	08/27	
Bromodichloromethane	0.0010		mg/L	EPA 8260		08/27	08/27	
Bromoform	0.0010		mg/L	EPA 8260		08/27	08/27	
Bromomethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	
n-Butylbenzene	0.0010	U	mg/L	EPA 8260		08/27	08/27	
sec-Butylbenzene	0.0010		mg/L	EPA 8260		08/27	08/27	
tert-Butylbenzne	0.0010	U	mg/L	EPA 8260		08/27	08/27	1
Carbon Tetrachloride	0.0010	U	mg/L	EPA 8260			08/27	
Chlorobenzene	0.0010	. U	mg/L	EPA 8260		08/27	08/27	
Chloroethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	1
Chloroform	0.0010	U	mg/L	EPA 8260		08/27	08/27	1
Chloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	1
2-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27	08/27	
4-Chlorotoluene	0.0010	U	mg/L	EPA 8260		08/27		
Dibromostis	0.0010	U	mg/L	EPA 8260		08/27	08/27	1
Dibromochloromethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	1
12Dibromo3Chloropropane	0.0010	Ü	mg/L	EPA 8260		08/27	08/27	j
1,2-Dibromoethane	0.0010	ប	mg/L			08/27		ŀ
Dibromomethane	0.0010	U	mg/L	EPA 8260		08/27	08/27	ŀ
1,2-Dichlorobenzene	0.0010	Ū	mg/L	EPA 8260		08/27	08/27	F
1.3-Dichlorobenzene	0.0010	Ü	mq/L	EPA 8260		08/27		F
1,4-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260		08/27	08/27	ŀ
Dichlorodifluoromethane	0.0010	Ū	mg/L	EPA 8260		08/27	08/27	ŀ
,1-Dichloroethane	0.0010	Ū	mg/L	EPA 8260		08/27	08/27	ŀ
,2-Dichloroethane	0.0010	Ū	mg/L	EPA 8260		08/27	08/27	H
,1-Dichloroethene	0.0010	Ū	mg/L	EPA 8260		08/27		K
cis-1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		08/27		K
rans1,2-Dichloroethene	0.0010	U	mg/L	EPA 8260		08/27	08/27	K
,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27 (	08/27	K
,3-Dichloropropane	0.0010	บ	mg/L	EPA 8260		08/27 (	08/27	K
,2-Dichloropropane	0.0010	U	mg/L	EPA 8260		08/27 (	08/27	K
.1-Dichloropropene	0.0010	Ū	mg/L	EPA 8260		08/27 (	08/27	К
thylbenzene	0.0010	Ü	mg/L	EPA 8260	-	08/27 (	08/27	K
exachlorobutadiene	0.0010	Ü	mg/L	EPA 8260	(	08/27 (	8/27	К
sopropylbenzene	0.0010	Ü	mg/L	EPA 8260		08/27 0		KI
	1	•	1197 L	EPA 8260		08/27 0		К





ENVIRONMENTAL LABORATORY SERVICES

SINCE 1908							
	1311 gul 2/94	REPO	ORT of ANA	LYSIS			
	• 4211-7				ANC	5633 B	STREET
	R LE03 TB Ø3				AITC	HORAGE, A TEL: (907) !	NK 99518 562,2341
Matrix :WA	TER					FAX: (907)	561-530
<b>.</b>							
p-Isopropyltoluene		U	mg/L	EPA 8260	08/27	08/27	
Methylene Chloride	0.0010	U	mg/L	EPA 8260			
Napthalene	0.0010	U	mg/L	EPA 8260		08/27	
n-Propylbenzene	0.0010	U	mg/L	EPA 8260		08/27	
Styrene	0.0010	Ü	mg/L			08/27	
1112-Tetrachloroeti	nane 0.0010		mg/L	EPA 8260		08/27	
1122-Tetrachloroeti	nane 0.0010	ប		EPA 8260		08/27	KW
Tetrachloroethene	0.0010		mg/L	EPA 8260		08/27	KW
Toluene	0.0010		mg/L	EPA 8260		08/27	KW
1,2,3-Trichlorobens	zene 0.0010		mg/L	EPA 8260	08/27	08/27	KW
1,2,4-Trichlorobenz		Ü	mg/L	EPA 8260	08/27	08/27	KW
1,1,1-Trichloroeth		ប	mg/L	EPA 8260	08/27	08/27	KW
			ing/L	EPA 8260		08/27	KW
1,1,2-Trichloroetha	_,	Ü	mg/L	EPA 8260		08/27	KW
Trichloroethene	0.0010	U	mg/L	EPA 8260		08/27	KW.
Trichlorofluorometh		U	mg/L	EPA 8260		08/27	KM.
1,2,3-Trichloropror		U	mg/L	EPA 8260		08/27	KW
1,2,4-Trimethylbenz		U	mg/L	EPA 8260		08/27	KW
1,3,5-Trimethylbenz		U	mg/L	EPA 8260		08/27	KW
Vinyl Chloride	0.0010	ប	mg/L	EPA 8260		08/27	
p+m-Xylene	0.0010	U	mg/L	EPA 8260		08/27	KWi
o-Xylene	0.0010	U	mg/L	EPA 8260			KWI
			⊒/ ₩	- A 0200	UB/21	08/27	KWI

See Special Instructions Above

See Sample Remarks Above ·

U = Undetected, Reported value is the practical quantification limit.

D = Secondary dilution.

UA = Unavailable NA = Not Analyzed

LT = Less Than

GT = Greater Than





ENVIRONMENTAL LABORATORY SERVICES

8WK12197

REPORT of ANALYSIS

ANCHORAGE, AK 99518 TEL: (907) 562-2343

FAX: (907) 561-5301

hr:

hr:

hemlab Ref.# Client Sample ID :BTR-TB₁04 Matrix

:93.4302-9 :WATER

:ICF KAISER ENGINEERING :RAY MORRIS

Ordered By Project Name Project#

Client Name

PWSID

:DEW LINE :BARTER :UA

WORK Order :70001 Report Completed :09/28/93

Collected :08/20/93 @ 10:00 Received :08/24/93 @ 12:00

Technical Director:STEPHEN G. EDE Released By :

Sample Remarks: SAMPLE COLLECTED BY: RANDOLPH ORTTUND AND M. LEMMA.

Parameter	Results	QC Qual	Units	Method	Allowable Limits	Ext. Date	Anal Date	Init
Volatile Organics								
Benzene	0.0010	U	mg/L	EPA 8260		00 100	00.400	
Bromobenzene	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
Bromochloromethane	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
Bromodichloromethane	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
Bromoform	0.0010	Ü	mg/L	EPA 8260 EPA 8260			09/02	KWM
Bromomethane	0.0010	Ü	mg/L				09/02	KWE
n-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
sec-Butylbenzene	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
tert-Butylbenzne	0.0010	ŭ	mg/L	EPA 8260			09/02	KWM
Carbon Tetrachloride	0.0010	บั	mg/L	EPA 8260			09/02	KWM
Chlorobenzene	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
Chloroethane	0.0010	Ŭ	mg/L	EPA 8260			09/02	KWM
Chloroform	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
Chloromethane	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
2-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
4-Chlorotoluene	0.0010	Ü	mg/L	EPA 8260			09/02	KWM
Dibromochloromethane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
12Dibromo3Chloropropane	0.0010	Ŭ	mg/L	EPA 8260		09/02		KWM
1,2-Dibromoethane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
Dibromomethane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
1,2-Dichlorobenzene	0.0010	Ŭ	mg/L	EPA 8260 EPA 8260		09/02		KWM
1,3-Dichlorobenzene	0.0010	บั	mg/L			09/02		KWM
1,4-Dichlorobenzene	0.0010	Ü	mg/L	EPA 8260 EPA 8260		09/02		KWM
Dichlorodifluoromethane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
1,1-Dichloroethane	0.0010	Ŭ	mg/L	EPA 8260		09/02		KWM
1,2-Dichloroethane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
1,1-Dichloroethene	0.0010	Ŭ	mg/L	EPA 8260		09/02		KWM
cis-1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
trans1,2-Dichloroethene	0.0010	Ü	mg/L	EPA 8260		09/02	09/02	KWM
1,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
1,3-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
2,2-Dichloropropane	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
1,1-Dichloropropene	0.0010	Ŭ	mg/L	EPA 8260		09/02		KWM
Ethylbenzene	0.0010	บั	mg/L	EPA 8260		09/02		KWM
Hexachlorobutadiene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
Isopropylbenzene	0.0010	Ü	mg/L	EPA 8260		09/02		KWM
p-Isopropyltoluene	0.0010	Ü	mg/L	EPA 8260		09/02 09/02	03/02 00/02	KWM
	1	_		LA A OLOV		09/02	U 3/ U Z	KWM



**ENVIRONMENTAL LABORATORY SERVICES** 

SINCE 1908	, , αΥ			
Chemlab Ref.# :93.4302 Client Sample ID :BTR-TB1 Matrix :WATER	-9	REPORT of I	ANALYSIS	5633 B STREET ANCHORAGE, AK 99518 TEL: (907) 562-2343 FAX: (907) 561-5301
Methylene Chloride Napthalene n-Propylbenzene Styrene 1112-Tetrachloroethane 1122-Tetrachloroethane Tetrachloroethene Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichloroethene Trichlorofluoromethane 1,2,3-Trichloropropane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Vinyl Chloride p+m-Xylene o-Xylene	0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010 0.0010	U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L U mg/L	EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260 EPA 8260	09/02 09/02 KWIN 09/02 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 09/02 KWIN 09/02 WWIN 09/02 09/02 KWIN 09/02 WWIN 09/02 WWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09/02 KWIN 09

See Sample Remarks Above

U = Undetected, Reported value is the practical quantification limit. D = Secondary dilution.

UA = Unavailable

NA = Not Analyzed

LT = Less Than **GT** = **Greater** Than



**SGS** Member of the SGS Group (Société Générale de Surveillance)

See Special Instructions Above

ICF ID F&BI Number Sample Type Date Received % Dry Weight	BTR-AB-02 315 water 8/23/93	BTR-AB-03 1712 water 9/2/93	BTR-EB-04 311 water 8/23/93	BTR-EB-05 332 water 8/23/93	BTR-EB-06 1690 water 9/2/93	BTR-EB-06 1688 water 9/2/93
Sequence Date Leaded Gas						#5-09/06/93
JP-4 Lube Oil						< 1000
Diesel						< 1000 T
Spike Level						
Unknown Semi-volatile						
Pentacosane						120
Sequence Date						#5-09/06/93
PCB 1221 PCB 1232						<2 <2
PCB 1016						<2
PCB 1242						<2
PCB 1248						<2
PCB 1254						<2
PCB 1260						<2
Spike Level						
Dibutyl Chlorendate						130
Sequence Date						
alpha-BHC						
beta-BHC						
gamma-BHC delta-BHC						
Heptachlor						
Aldrin						
Heptachlor Epoxide						
Endosulfan I						
DDE						
Dieldrin						
Endrin						
Endosulfan II DDD						
Endrin Aldehyde DDT						
Endosulfan Sulfate						
Endrin Ketone						
Methoxy Chlor						
Chlordane						
Dibutyl Chlorendate Spike Level						
Vol Sequence	#3&4-08/24/93	#1&2-09/04/93	#3&4-08/24/93	#3&4-08/24/93	#1&2-09/04/93	
CC14	<1	く9ゴ	<1	<1	<1	
TCA	<1	<1	<1	<1	<1	
Benzene	<1	<1	<1	<1	<1	
TCE	<1	<1	<1	<1	<1	
Toluene	<1	∠3 possible carry over J		<1	∠4 possible carry over J	-
PCE Eshalbangana	<1	<1	<1	<1 ====================================	<1	<del></del>
Ethylbenzene Yvlonos	<1 <2	<2 possible carry over J	•	<1	∠2 possible carry over J  ∴ E possible carry over J	
Xylenes Gasoline	<2 ≤504∞	く5 possible carry overす て <50 丁	12-62 5041003	<2	∠5 possible carry over ♂	•.
Spike level			_	, -		
BFB .	98	92	105	81	103	. b.

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ICF ID F&BI Number	BTR-EB-07 1715	BTR-EB-07 1716	BTR-EB-08 1719	BTR-EB-08 1720	BTR-TB-04 1346	BTR-TB-05 375	
Sample Type	water	water	water	water	water	water	
Date Received	9/3/93	9/3/93	9/3/93	9/3/93	8/30/93	8/23/93	
% Dry Weight	0,0,00	0,0,00	0,0,00	-1-1			4
Sequence Date	#5-09/06/93		#5-09/06/93				•
Leaded Gas	#3-03/00/33		#0 00100100				
JP-4	< 1000		< 1000				
Lube Oil	< 2000		< 2000				
			< 1000				
Diesel	< 1000		< 1000				
Spike Level							
Unknown Semi-volatile			400				
Pentacosane	130		130				
Sequence Date							
PCB 1221							
PCB 1232							
PCB 1016							
PCB 1242							
PCB 1248							
PCB 1254							
PCB 1260							
Spike Level							
Dibutyl Chlorendate							
Sequence Date							
alpha-BHC							
beta-BHC							
gamma-BHC							
delta-BHC							4
Heptachlor							
Aldrin							•
Heptachlor Epoxide							
Endosulfan l							
DDE							
Dieldrin						•	
Endrin							
Endosulfan II							
DDD							
Endrin Aldehyde							
DDT							
Endosulfan Sulfate							
Endrin Ketone							
Methoxy Chlor							
Chlordane							
Dibutyl Chlorendate							
Spike Level		#19.2 00106102		#1&2-09/06/93	#3& <u>A_</u> 08/21/02	#1&2-08/24/93	
Vol Sequence		#1&2-09/06/93		#1&2-U9/U6/93 <5 J			
CCI4		<5J			<17	<1	
TCA		<5丁		<5 J	<17	<1	
Benzene		<1		<1	<1	<1	
TCE		<15		<15	<15	<1	
Toluene	<	2 <del>possible carry over-</del>	J	∠1 <del>possible carry over</del>		<1	
PCE		<5丁		<5 <u></u> J	<15	<1	4
Ethylbenzene		<1		<1	<1	<1	•
Xylenes		<b>'</b> <2		<2	<2	<b>`&lt;2</b>	
Gasoline		<50丁		<50 T	<1007	<50 T	
Spike level							
BFB ·		88		94	84	ZZZ	
							/14

# APPENDIX G DATA VALIDATION SUMMARIES



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Timothy Vonnahme

ANALYSIS:

Diesel by EPA Method 8015M

**MATRIX:** 

Water

DATE:

April 15, 1994

## I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 4 water samples from the Barter Island site on August 21, 1993 (referenced chain of custody record No. 396). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 1, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-LF01-SW04	1348	Water
BTR-LF01-SW03	1362	Water
BTR-LF01-SW02	1368	Water
BTR-LF01-SW01	1372	Water

The laboratory did not submit the raw data for sample BTR-LF01-SW01, even though results for this sample were found on the summary result page.

It should be noted that all quantitation limits reported by the laboratory (200 ppb) for the water samples were lower than those specified in the Project Sampling and Analysis Plan (500 ppb). The correct practical quantitation limit (PQL) when employing the lowest usable calibration point (50 ppm) should be 2500 ppb.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional

Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in all project samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analysis with this project sample set. .

H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

1.1 Sample number TW (tap water) was used for the water matrix spike/matrix spike duplicate analyses.

1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

# J. <u>System Performance:</u>

J.1 No problems with system performance were observed for all project sample analyses.

## K. Quantitation and Identification:

- K.1 The PQL of the water samples was raised to 2500 ppm by the reviewer since the low point of the initial calibration was 50 ppm.
- K.2 The laboratory did not submit the raw data for sample BTR-LF01-SW01, even though results for this sample were reported on the summary result page. Since no raw data was submitted for sample result verification, the results are qualified "R" as rejected and unusable.
- K.3 No other problems with compound quantitation and identification were observed for this project sample set.

## L. Conclusion:

- L.1 Due to previously mentioned problems in Section K.2, the results for sample BTR-LF01-SW01 are qualified "R" as rejected and unusable.
- L.2 Diesel was not detected in the method blank or in all other samples at a concentration above the PQL (2500 ppm) and the results are considered valid and usable for all purposes.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS. INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

**ANALYSIS:** 

Diesel by EPA Method 8015M

MATRIX:

Water

DATE:

April 25, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 6 water and 6 soil samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 474). Six water samples were requested for diesel analyses by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 8 and 9, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-LF01-2SW01	1663	Water
BTR-LF01-2SW02	1664	Water
BTR-LF01-2SW03	1665	Water
BTR-LF01-2SW04	1666	Water
BTR-LF04-2SW01	1669	Water
BTR-LF04-2SW02	1670	Water

It should be noted that all quantitation limits reported by the laboratory for diesel for project water samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional

Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

## A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in the project water samples are qualified "J" as estimated and usable for limited purposes.

## C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

#### D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

#### E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

F.1 The were no field blanks associated with this project sample set.

## G. Field Replicate Analyses:

G.1 There were no field replicate analyses associated with this project sample set.

#### H. Surrogate Recoveries:

H.1 Surrogate recoveries in samples BTR-LF01-2SW01 and BTR-LF01-2SW04 could not be verified by the reviewer due to incorrect area integration. The laboratory did not submit the corrected areas. It is the opinion of the reviewer that the quality of the data was not affected.

H.2 All other surrogate recoveries met applicable QC criteria and the results are

considered acceptable.

I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for this water sample set.

J. System Performance:

- J.1 All six samples were initially analyzed on September 7, 1993, but due to GC column and ECD detector contamination they were reanalyzed on September 8 and 9, 1993 after the GC system was operating correctly.
- J.2 No other problems with system performance were observed for all project water samples.

K. Quantitation and Identification:

- K.1 The samples were reanalyzed due to GC column and detector contamination.
- K.2 No other problems were observed with compound quantitation and identification.

L. <u>Conclusion:</u>

- L.1 Diesel was not detected in any of the samples at a concentration above the PQL.
- L.2 The laboratory did not analyze the samples for gasoline.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Timothy Vonnahme

ANALYSIS:

Diesel by EPA Method 8015M

MATRIX: DATE: Soil and Water April 12, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 6 soil and 2 water samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 395). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 1 and 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-LF04-SW01	1324	Water
BTR-LF04-SW02	1328	Water
BTR-LF04-S02	1334	Soil
BTR-LF04-SD01	1336	Soil
BTR-LF04-SD02	1338	Soil
BTR-LF01-SD01	1340	Soil
BTR-LF01-SD02	1342	Soil
BTR-LF01-SD03	1344	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that the quantitation limits reported by the laboratory for most of the project soil samples were higher than those specified in the Project Sampling and Analysis Plan due to a raised baseline present within the retention time window of diesel. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%.

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in all project samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable. However, the soil method blank (MBLK 1318) was contaminated with lube oil from a previous analysis.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blanks at a concentration above the PQL and the results are considered acceptable.

## F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

#### G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analyses for this project sample set.

#### H. <u>Surrogate Recoveries:</u>

H.1 Surrogate recoveries were calculated by the reviewer using peak height due to incorrect area integration of the surrogate in many of the samples. All surrogate recoveries were calculated referencing the average surrogate peak height from the initial calibration. All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

## Matrix Spike/Matrix Spike Duplicate:

- 1.1 Sample number BTR-AOC09-S09 was used for the soil matrix spike/matrix spike duplicate analyses. No matrix spike/matrix spike duplicate analyses were submitted for the water samples.
- I.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

#### J. System Performance:

J.1 No problems with system performance were observed for all project sample analyses.

#### K. Quantitation and Identification:

- K.1 The soil method blank and most of the soil samples exhibited a raised baseline in the diesel retention time window caused by probable hydrocarbon contamination. The PQLs have been increased to reflect this contamination. It is the opinion of the reviewer that this will have no effect on the quality of the data.
- K.2 The laboratory reported detected results of 60 ppm for diesel in sample BTR-LF04-SD02. It is the opinion of the reviewer that even though the PQL for this sample is <60 ppm, diesel is actually present in the sample, and is not due to carryover from a previous sample.
- K.3 Samples BTR-LF04-S02 and BTR-LF04-SD01 displayed above average PQLs due to the high percent moisture content in the samples.
- K.4 Sample BTR-LF04-S02 contained biogenic hydrocarbon and lube oil contamination. No diesel was detected in the sample.
- K.5 The PQL of the water samples were raised to 2500 ppm by the reviewer since the low point of the initial calibration was 50 ppm
- K.6 No other problems were observed with compound quantitation and identification.

## L. <u>Conclusion:</u>

- L.1 Diesel was not detected in the method blanks at a concentration above the PQL. The soil method blank was contaminated with lube oil from a previous sample.
- L.2 Diesel was detected in sample BTR-LF04-SD02 at a concentration of 60 ppm.
- L.3 The PQL of the individual samples were increased by the laboratory to account for the raised baseline present within the retention time window of diesel.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Diesel by EPA Method 8015M

**MATRIX:** 

Soil

DATE:

April 22, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 5 soil samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 475). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 6 and 9, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-LF03-2SD09	1678	Soil
BTR-LF03-2SD10	1680	Soil
BTR-AOC1-2S06	1682	Soil
BTR-AOC1-2S07	1684	Soil
BTR-AOC1-2S08	1686	Soil

The laboratory incorrectly listed the ICF site numbers for samples 1682, 1684, and 1686 on the data summary sheets as BTR-AOC1-2S06. The ICF site numbers have been corrected by the reviewer.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for diesel for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in the project water samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 Two of the three continuing calibration standards exceeded the QC percent recovery criteria of 75-125%. Therefore, the PQL from the associated water samples is qualified "J" as estimated and usable for limited purposes.

D. <u>Laboratory Blanks:</u>

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 The were no field blanks associated with this project sample set.

G. Field Replicate Analyses:

G.1 There were no field replicate analyses associated with this project sample set.

H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

# I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

- 1.1 Sample BTR-SS14-2S06-3 was used as the QC sample for the matrix spike/matrix spike duplicate analyses. This sample was not submitted on chain of custody record No. 475.
- 1.2 All matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

## J. System Performance:

J.1 No problems with system performance were observed for all project sample analyses.

## K. Quantitation and Identification:

- K.1 Two of the continuing calibration standards exceeded the percent recovery QC criteria. Therefore the PQL of the blank and all associated samples with these calibration standards are qualified "J" as estimated and usable for limited purposes.
- K.2 No other problems were observed with compound quantitation and identification.

#### L. Conclusion:

- K.1 Diesel was not detected in any of the samples at a concentration above the PQL.
- K.2 Due to previously mentioned problems with the continuing calibrations, the PQL for the associated method blank and samples are qualified "J" as estimated and usable for limited purposes.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

## **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

**ANALYSIS:** 

Diesel by EPA Method 8015M

MATRIX:

Water and Soil

DATE:

April 21, 1994

## I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (Seattle, WA) received 12 soil and 3 water samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 478). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 6 and 9, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>	<u>Matrix</u>
BTR-EB-07	1716	Water
BTR-EB-08	1720	Water
BTR-SS13-2S05	1724	Soil
BTR-SS13-2S06	1726	Soil
BTR-SS13-2S07	1728	Soil
BTR-SD08-2S11	1730	Soil
BTR-SD08-2S12	1732	Soil
BTR-SD08-2S13-4	1734	Soil
BTR-SD08-2S14-4	1736	Soil
BTR-SD08-2S15-5	1738	Soil
BTR-SD08-2S16-1	1740	Soil
BTR-LF04-2SW03	1748	Water
BTR-LF04-2SD04	1744	Soil
BTR-LF04-2SD03	1742	Soil
BTR-BKGD-2SD03	1746	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-2S11 and BTR-SD08-2S12 were designated as field replicates, sample numbers BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were designated as field replicates, and sample numbers BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for the project water samples (<1000 ppb) were higher than those specified in the Project Sampling and Analysis Plan (<500 ppb). However, since the low point of the initial calibration is 50 ppm, the PQL was raised to <2500 ppm by the reviewer. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. <u>Initial Calibration</u>:

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in the project water samples are qualified "J" as estimated and usable for limited purposes.

B.2 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent

relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%. However, since this is only a three point initial calibration curve, all detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

- C.1 The two continuing calibration standards analyzed on GC instrument ICF5 exceeded (71.5 & 70.2%) the QC percent recovery criteria of 75-125%. Therefore, the PQL for the three water samples are qualified "J" as estimated and usable for limited purposes.
- C.2 The continuing calibration standards analyzed on GC instrument ICF6 met all the QC criteria and are considered acceptable.

D. <u>Laboratory Blanks:</u>

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. <u>Instrument Blanks:</u>

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

- F.1 Samples BTR-EB-07 and BTR-EB-08 were designated as field equipment blanks for this project sample set.
- F.2 Diesel was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analyses:

- G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-SD08-2S11 and BTR-SD08-2S12 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.
- G.3 Samples BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 Sample number BTR-AOC9-2S14.5 was used for the soil matrix spike/matrix

spike duplicate analyses. No matrix spike/matrix spike duplicate analyses were submitted for the water samples.

1.2 The matrix spike duplicate percent recovery was outside the QC criteria due to incorrect area integration by the laboratory. No action is taken solely on the MS/MSD analysis.

#### J. System Performance:

- J.1 Some of the soil samples exhibited a raised baseline within the retention time window of diesel, and all PQLs have been adjusted accordingly by the laboratory.
- J.2 No other problems with system performance were observed for all project sample analyses.

## K. Quantitation and Identification:

- K.1 A discrepancy exists between the result reported by the laboratory and the result regenerated by the reviewer for sample BTR-SS13-2S07. The laboratory reported a result of 87 ppm for diesel, whereas the reviewer calculated diesel at a concentration of 110 ppm. The result for this sample has been corrected on the data summary forms by the reviewer. The detected result is qualified "J" as estimated and usable for limited purposes.
- K.2 The laboratory reported a detected result of 520 ppm for diesel in sample BTR-LF04-2SD03. The chromatogram and quantitation report does not support the presence of diesel in the sample. Therefore, the detected result for diesel has been changed on the data summary form by the reviewer to reflect that this analyte was not detected at a concentration above the PQL.
- K.3 The PQL for some of the soil samples was raised by the laboratory due to interference present within the retention time window of diesel. It is the opinion of the reviewer that this will have no affect on the quality of the data.
- K.4 No other problems were observed with compound quantitation and identification.

#### L. <u>Conclusion:</u>

- K.1 Diesel was detected in sample BTR-SS13-2S07 at a concentration of 110 ppm.
- K.2 The laboratory incorrectly reported diesel at a concentration of 520 ppm for sample BTR-LF04-2SD03. No diesel was detected by the reviewer and the sample result has been corrected on the data summary form.
- K.3 Diesel was not detected at a concentration above the PQL in any of the other project samples.
- K.4 The PQL for the three water samples was raised to <2500 ppm because the low point of the initial calibration is 50 ppm.

- K.5 Due to recovery problems with the continuing calibrations on GC instrument ICF5, the PQL for the three water samples is qualified "J" as estimated and usable for limited purposes.
- K.6 Due to problems with the initial calibration on GC instrument ICF6, the detected results for the soil samples are qualified "J" as estimated and usable for limited purposes.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Timothy Vonnahme

ANALYSIS:

Diesel by EPA Method 8015M

MATRIX: Water and Soil DATE: April 26, 1994

## I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 10 soil and 2 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 476). One water sample and 10 soil samples were requested for diesel analyses by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 6 and 7, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-EB-06	1688	Water
BTR-AOC15-2S04	1692	Soil
BTR-AOC15-2S05	1694	Soil
BTR-AOC10-2SD02	1696	Soil
BTR-AOC10-2S06-1.5	1698	Soil
BTR-AOC10-2S07	1700	Soil
BTR-AOC10-S208	1702	Soil
BTR-AOC10-2S09	1704	Soil
BTR-SS14-2S05	1706	Soil
BTR-SS14-2S06-3	1708	Soil
BTR-SS14-2S07	1710	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-2S08 and BTR-AOC10-2S09 were designated as field replicates, and sample number BTR-EB-06 was designated as an equipment blank.

It should be noted that all quantitation limits reported by the laboratory for diesel for water and soil project samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration</u>:

B.1 The laboratory analyzed a 6 point initial calibration on GC instrument ICF5 on 8/28/93. The attempted range of the initial calibration was from 10 ppm to 10,000 ppm. Due to low sensitivity and interference, the 10 ppm calibration standard was deleted from the calibration. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 41.6% was calculated using calibration factors determined from the initial 5 point calibration. The RSD of 41.6% exceeds the recommended QC criteria of 20.0%, primarily due to the interference in the 50 ppm calibration standard which produced an artificially high calibration factor. A %RSD of 9.8 was obtained using a range of 200 ppm to 10,000 ppm. Since the initial calibration exceeds the recommended QC criteria of 20.0%, the detected results for diesel in the project water samples are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 Two of the three continuing calibration standards exceeded the percent recovery QC criteria of 75-125% due to incorrect area integration performed by the laboratory. Therefore, the PQL from the associated samples is qualified "J" as estimated and usable for limited purposes.

C.2 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

#### E. <u>Instrument Blanks:</u>

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

- F.1 Sample number BTR-EB-06 was designated as an equipment blank.
- F.2 Diesel was not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

## G. Field Replicate Analyses:

- G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC10-2S08 and BTR-AOC10-2S09 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

#### H. <u>Surrogate Recoveries:</u>

H.1 A discrepancy exists between the surrogate recoveries reported by the laboratory and the surrogate recoveries calculated by the reviewer, as listed below:

ICF Site No.	<u>Laboratory Results</u>	Validation Results
BTR-AOC15-2S04	53%	93%
BTR-AOC15-2S05	61	89
BTR-AOC10-2SD02	51	85
BTR-AOC10-2S06-1.5	<i>7</i> 5	114
BTR-AOC10-2S07	64	112
BTR-AOC10-S208	90	81
BTR-AOC10-2S09	50	94
BTR-SS14-2S05	63	118
BTR-SS14-2S06-3	53	113
BTR-SS14-2S07	94	102

The laboratory reported the surrogate recoveries for DBC from the ECD detector instead of pentacosane used as the diesel surrogate from the FID detector. Since the recalculated surrogate recoveries met applicable QC criteria, the results are considered acceptable.

#### 1. <u>Matrix Spike/Matrix Spike Duplicate:</u>

- I.1 Sample number BTR-SS14-2S06-3 was used for the soil matrix spike/matrix spike duplicate analyses, and tap water was used for the water matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

- J. System Performance:
  - J.1 Two of the continuing calibration standards and sample BTR-SS14-2S07 were incorrectly integrated by the laboratory.
  - J.2 No other problems with system performance were observed for all project samples.
- K. Quantitation and Identification:
  - K.1 Two of the continuing calibrations standards exceeded the QC criteria due to incorrect integration of the diesel area by the laboratory.
  - K.2 A discrepancy exists between the result reported by the laboratory and the result regenerated by the reviewer for sample BTR-SS14-2S07. The laboratory reported a PQL of <60 ppm for diesel, whereas the reviewer calculated diesel at a concentration of 8460 ppm. The result for this sample has been corrected on the summary results page by the reviewer. The detected results are qualified "J" as estimated and usable for limited purposes.
  - K.3 Sample BTR-SS14-2S05 exhibited biogenic interference within the retention time of diesel and the PQL was raised accordingly by the laboratory.
  - K.4 No other problems were observed with compound quantitation and identification.
- L. <u>Conclusion:</u>
  - L.1 Diesel was detected in sample BTR-SS14-2S07 at a concentration of 8460 ppm, calculated by the reviewer, whereas the laboratory reported a PQL of 60 ppm.
  - L.2 Sample BTR-EB-06 exhibited a baseline below zero millivolts as displayed on the chromatogram. Therefore, the PQL is qualified "J" as estimated and usable for limited purposes.
  - L.3 Due to previously mentioned problems with the initial calibration and continuing calibrations, the detected results and PQL for the associated method blanks and samples are qualified "J" as estimated and usable for limited purposes.



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#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Diesel by EPA Method 8015M

MATRIX: DATE:

Water and Soil April 13, 1994

#### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (Seattle, WA) received 1 water and 13 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on August 24 and 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.		Lab Sample No.	<u>Matrix</u>
BTR-SS14-SW01		333	Water
BTR-SS14-S01		339	Soil
BTR-SS14-S02	(1:10 DIL)	341	Soil
BTR-SS14-S03		343	Soil
BTR-SS14-S04		345	Soil
BTR-SS14-S06		347	Soil
BTR-SS14-SD01	(1:10 DIL)	349	Soil
BTR-AOC10-SD01		351	Soil
BTR-AOC10-S01		353	Soil
BTR-AOC10-S02		355	Soil
BTR-AOC10-S03		357	Soil
BTR-AOC10-S04		359	Soil
BTR-AOC10-S05		361	Soil
BTR-AOC10-S06		363	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-SS14-S03 and BTR-SS14-S06 along with sample numbers BTR-AOC10-S04 and BTR-AOC10-S06 were designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

## A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration:</u>

- B.1 The laboratory attempted to perform a 6 point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 50 ppm to 10,000 ppm. The 500 ppm and the 200 ppm standards were not used due to autosampler injection errors. A percent relative standard deviation (%RSD) of 48.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 48.3% exceeds the recommended QC criteria of 20.0%. Since the %RSD exceeds the recommended criteria, the detected results for diesel in all the soil samples are qualified "J" as estimated and usable for limited purposes.
- B.2 Due to an increase in sensitivity, a second 3 point initial calibration on GC instrument ICF6 was performed on August 28, 1993. The range of this initial calibration was from 100 ppm to 10,000 ppm. A percent relative standard deviation (%RSD) of 9.07 was calculated using calibration factors determined from the initial calibration. Since this initial calibration was performed after the samples were analyzed, it can not be used for quantitation of this sample set, but can be used as a reference to explain the increased sensitivity in this sample set.

## C. <u>Continuing Calibration:</u>

C.1 Due to the increase in sensitivity after the initial calibration, the percent recoveries of the four continuing calibrations (169-193%) exceeded the QC criteria (75-125%). When referenced against the 3 point initial calibration analyzed after the samples were analyzed on 8/29/93, the percent recovery range of the continuing calibrations is 119-136%. It is the opinion of the reviewer that if the continuing calibration standards were integrated correctly, the percent recoveries would be somewhat lower than what was reported by the laboratory. Since the percent recoveries of the continuing calibrations exceeded the QC criteria, all detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and usable for limited purposes.

## D. <u>Laboratory Blanks:</u>

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

# E. <u>Instrument Blanks:</u>

E.1 Diesel was not detected in the instruments blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

## G. <u>Field Replicate Analyses:</u>

- G.1 A QC limit for precision of \$50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-SS14-S03 and BTR-SS14-S06 were utilized for field replicate analyses. Diesel was detected in sample BTR-SS14-S03 at a concentration of 5800 ppm, and in sample BTR-SS14-S06 at a concentration of 3100 ppm. The %RPD of this replicate analyses is 61%, exceeding the QC criteria of  $\leq$ 50%. It is not known what effect this will have on the quality of the data.
- G.3 Samples BTR-AOC10-S04 and BTR-AOC10-S06 were also utilized for field replicate analyses. The results met all applicable QC criteria, and the results are considered acceptable.

# H. <u>Surrogate Recoveries:</u>

H.1 Discrepancies exist between the surrogate recoveries reported by the laboratory and the surrogate recoveries calculated by the reviewer for all samples. This is not expected to have an affect on the quality of the data since both sets of surrogate recoveries met all of the applicable QC criteria.

#### I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

- 1.1 Sample number BTR-LF01-S01 was used for the soil matrix spike/matrix spike duplicate analyses. No matrix spike/matrix spike duplicate analyses were submitted for the water sample.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

## J. System Performance:

J.1 No problems with system performance were observed for all project sample analyses.

## K. Quantitation and Identification:

K.1 The laboratory reported diesel results of 1200 ppb for water sample BTR-SS14-SW01, well below the PQL of 2500 ppb. It is the opinion of the reviewer that the submitted chromatogram does not support the presence of diesel in the sample. Therefore, the detected result for diesel in the sample has been changed on the data summary form by the reviewer to reflect that diesel was not detected at a concentration above the PQL.

K.2 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for some of the project samples. Listed below are the sample results where discrepancies exist. Results are reported in parts per million (ppm) except where noted.

ICF Site No.	Laboratory Results	Validation Results
BTR-SS14-SW01	1200 ppb	<2500 ppb
BTR-SS14-S02	12000	12400
BTR-SS14-S03	5100	5800
BTR-SS14-S04	48000	5500
BTR-SS14-S06	5300	3100
BTR-SS14-SD01	4300	5100
BTR-AOC10-SD01	460	580

The discrepancies are probably due to inconsistent quantitation procedures performed by the laboratory, incorrect area integrations as detected on the chromatograms, or incorrect adjustment for moisture content. The laboratory was unable to reproduce some of the reported detected results for diesel which indicates that inconsistent quantitation procedures may have been used.

- K.3 Samples BTR-SS14-S02 and BTR-SS14-SD01 were diluted by a factor of 10 due to high levels of diesel present in the samples.
- K.4 No other problems were observed with compound quantitation and identification.

#### L. Conclusion:

- L.1 Diesel was detected in six of the samples at concentrations ranging between 580-12,000 ppm as described in Section K.2.
- L.2 Due to the previously mentioned problems with the initial calibrations and the continuing calibrations, all data has been qualified "J" as estimated and usable for limited purposes.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Diesel by EPA Method 8015M

MATRIX: DATE:

Water and Soil April 8, 1994

## I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 21 and 22, 1993 (referenced chain of custody record No. 389). Requested analysis was for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on August 24 and 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>	<u>Matrix</u>
BTR-AOC14-SW01	398	Water
BTR-AOC14-S02	400	Soil
BTR-AOC14-S01	402	Soil
BTR-AOC14-SW02	406	Water
BTR-AOC14-SW03	410	Water
BTR-LF12-S02	412	Soil
BTR-LF12-S03	414	Soil
BTR-LF12-S01	416	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-SW02 and BTR-AOC14-SW03 were designated as field duplicates.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets

submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory attempted to perform a 6 point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 50 ppm to 10,000 ppm. The 500 ppm and the 200 ppm standards were not used due to autosampler injection errors. A percent relative standard deviation (%RSD) of 48.3 was calculated using calibration factors determined from the initial calibration. The %RSD of 48.3% exceeds the recommended QC criteria of 20.0%.

Since the initial calibration was only a 4 point calibration curve, and the %RSD exceeds the recommended criteria, the detected results for diesel in all the samples are qualified "J" as estimated and usable for limited purposes.

B.2 Due to an increase in sensitivity, a second 3 point initial calibration on GC instrument ICF6 was performed on August 28, 1993. The range of this initial calibration was from 100 ppm to 10,000 ppm. A percent relative standard deviation (%RSD) of 9.07 was calculated using calibration factors determined from the initial calibration. Since this initial calibration was performed after the samples were analyzed, it can not be used for quantitation of this sample set, but can be used as a reference to explain the increased sensitivity in this sample set.

C. Continuing Calibration:

C.1 Due to the increase in sensitivity after the initial calibration, the percent recoveries of the four continuing calibrations (164-178%) exceeded the QC criteria (75-125%). When referenced against the 3 point initial calibration analyzed after the samples were analyzed on 8/29/93, the percent recovery range of the continuing calibrations are 115-125%. Since the percent recoveries of the continuing calibrations exceeded the QC criteria, all practical quantitation limits (PQLs) are qualified "J" as estimated and usable for limited purposes.

D. <u>Laboratory Blanks:</u>

D.1 Diesel was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blank at a concentration above the PQL and the results are considered acceptable.

## F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

## G. Field Duplicate Analyses:

- G.1 A QC limit for precision of ≤20 percent as measured by Relative Percent Difference (RPD) between water sample values, was specified for field duplicate comparability.
- G.2 Samples BTR-AOC14-SW02 and BTR-AOC14-SW03 were utilized for field duplicate analysis. The results of the field duplicate analyses met all applicable QC criteria and the results are considered acceptable.

## H. <u>Surrogate Recoveries:</u>

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

## I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

- 1.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

## J. System Performance:

- J.1 The laboratory reported an autosampler malfunction during the injection of two initial calibration standards.
- J.2 No other problems with system performance were observed for all other project sample analyses.

#### K. Quantitation and Identification:

- K.1 The three water samples exhibited a raised baseline in the diesel retention time window. It is the opinion of the reviewer that this will have no effect on the quality of the data.
- K.2 The laboratory inadvertently left out the results for Aroclor 1221 on the summary page for sample BTR-LF12-S03. The results were included by the reviewer.
- K.3 No other problems were observed for compound quantitation and identification.

#### L. <u>Conclusion:</u>

- L.1 Diesel was not detected in the method blanks or any of the samples.
- L.2 Due to the previously mentioned problems with the continuing calibrations, all PQLs for all project samples are qualified "J" as estimated and usable for limited purposes.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

**ANALYSIS:** 

Diesel by EPA Method 8015M

**MATRIX:** 

Soil

DATE:

April 18, 1994

## I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 12 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC15-S01	364	Soil
BTR-AOC15-S02	366	Soil
BTR-AOC15-S03	369	Soil
BTR-AOC07-S03	370	Soil
BTR-AOC07-S04	371	Soil
BTR-AOC07-S05	372	Soil
BTR-AOC07-S06	373	Soil
BTR-AOC08-S07	374	Soil
BTR-AOC14-SD01	378	Soil
BTR-AOC14-S04	380	Soil
BTR-AOC14-SD02	381	Soil
BTR-AOC14-S03	385	Soil

The analytical results for the samples were reported with an adjustment for moisture content.

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-AOC07-S06 and BTR-AOC07-S07, along with sample numbers BTR-AOC14-S03 and BTR-AOC14-S04 were designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

#### A. <u>Technical Holding Times</u>:

A.1 The technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration</u>:

- B.1 The laboratory attempted to perform a 6 point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 50 ppm to 10,000 ppm. The 500 ppm and the 200 ppm standards were not used due to autosampler injection errors. A percent relative standard deviation (%RSD) of 48.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 48.3% exceeds the recommended QC criteria of 20.0%. Since the %RSD exceeds the recommended criteria, the detected results for diesel in all the samples are qualified "J" as estimated and usable for limited purposes.
- B.2 Due to an increase in sensitivity, a second 3 point initial calibration on GC instrument ICF6 was performed on August 28, 1993. The range of this initial calibration was from 100 ppm to 10,000 ppm. A percent relative standard deviation (%RSD) of 9.07 was calculated using calibration factors determined from the initial calibration. Since this initial calibration was performed after the samples were analyzed, it can not be used for quantitation of this sample set, but can be used as a reference to explain the increased sensitivity in this sample set.

## C. <u>Continuing Calibration:</u>

C.1 Due to the increase in sensitivity after the initial calibration, the percent recoveries of the two continuing calibrations (161 & 169% respectively) exceeded the QC criteria (75-125%). When referenced to the 3 point initial calibration (8/29/93) analyzed after the samples, the percent recovery range of the continuing calibrations is 113-119%. All samples were quantitated using the closest continuing calibration standard (File 098F0201). Since the percent recoveries of the continuing calibrations exceeded the QC criteria, all detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and usable for limited purposes.

#### D. <u>Laboratory Blanks:</u>

D.1 Diesel was not detected in the method blank at a concentration above the

PQL and the results are considered acceptable.

# E. <u>Instrument Blanks:</u>

E.1 Diesel was not detected in the instruments blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

#### G. Field Replicate Analyses:

- G.1 A QC limit for precision of ≤50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC07-S06 and BTR-AOC07-S07 were utilized for field replicate analyses. The results met all applicable QC criteria, and the results are considered acceptable.
- G.3 Samples BTR-AOC14-S03 and BTR-AOC14-S04 were also utilized for field replicate analyses. The results met all applicable QC criteria, and the results are considered acceptable.

## H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

#### I. Matrix Spike/Matrix Spike Duplicate:

- I.1 Sample number BTR-AOC14-SD02 was used for the matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

#### J. System Performance:

- J.1 The laboratory reported an autosampler malfunction during the injection of two initial calibration standards.
- J.2 No problems with system performance were observed for all other project sample analyses.

#### K. Quantitation and Identification:

- K.1 All samples were quantitated using the closest continuing calibration standard (File 098F0201).
- K.2 No problems with compound quantitation and identification were observed for this project sample set.

## L. <u>Conclusion:</u>

- L.1 Diesel was detected in samples BTR-AOC15-S02 at a concentration of 1000 ppm, and BTR-AOC15-S03 at a concentration of 1300 ppm.
- L.2 Due to previously mentioned problems with the initial calibration and continuing calibrations, the detected results and PQLs for all the samples are qualified "J" as estimated and usable for limited purposes.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

**ANALYSIS:** 

Diesel by EPA Method 8015M

**MATRIX:** 

Soil

DATE:

April 11, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 1 soil sample from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 393). Requested analysis was for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 1, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No. BTR-AOC09-SD01 Lab Sample No. 1320 <u>Matrix</u> Soil

The analytical result for the soil sample was reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

# II. VALIDITY & COMMENTS:

# A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

### B. <u>Initial Calibration:</u>

B.1 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%.

## C. <u>Continuing Calibration:</u>

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

## D. <u>Laboratory Blanks:</u>

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

### E. Instrument Blanks:

E.1 Diesel was not detected in the instruments blank at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

### G. Field Duplicate Analyses:

G.1 There were no field duplicates submitted for analysis with the project sample set.

### H. <u>Surrogate Recoveries:</u>

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

### 1. <u>Matrix Spike/Matrix Spike Duplicate:</u>

- 1.1 Sample number BTR-AOC09-S09 was used for the soil matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

#### J. System Performance:

J.1 No problems with system performance were observed for all other project sample analyses.

# K. Quantitation and Identification:

- K.1 The method blank and the sample exhibited a raised baseline in the diesel retention time window. It is the opinion of the reviewer that this will have no effect on the quality of the data.
- K.2 Due to this raised baseline the laboratory increased the PQL of sample BTR-AOC09-S03 to <70 ppm. The laboratory should have also raised the PQL to <70 ppm for the method blank due to the same baseline problem. The PQL for the method blank has been increased to <70 ppm by the reviewer on the summary report form.
- K.3 No other problems were observed for compound quantitation and identification.

# L. <u>Conclusion:</u>

L.1 Diesel was not detected in the method blank or sample.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Diesel by EPA Method D8015M

**MATRIX:** 

Soil

DATE:

April 11, 1994

# I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 16 soil samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 394). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 1 and 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC08-S01	1290	Soil
BTR-AOC08-S02	1292	Soil
BTR-AOC08-S03	1294	Soil
BTR-AOC08-S04	1296	Soil
BTR-AOC08-S05	1298	Soil
BTR-AOC08-S06	1300	Soil
BTR-AOC09-S01	1302	Soil
BTR-AOC09-S02	1304	Soil
BTR-AOC09-S03	1306	Soil
BTR-AOC09-S10	1308	Soil
BTR-AOC09-S04	1310	Soil
BTR-AOC09-S05	1312	Soil
BTR-AOC09-S06	1314	Soil
BTR-AOC09-S07	1322	Soil
BTR-AOC09-S08	1316	Soil
BTR-AOC09-S09	1318	Soil

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-AOC08-S04 and BTR-AOC08-S06 along with sample numbers BTR-AOC09-S03 and BTR-AOC09-S10 were designated as field replicates.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan due to a raised baseline present within the retention time window of diesel. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

### B. <u>Initial Calibration</u>:

B.1 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%.

### C. <u>Continuing Calibration</u>:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

#### D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank (M/BLK 1318) at a concentration above the PQL and the results are considered acceptable. However, the method blank was contaminated with lube oil from a previous analysis.

### E. <u>Instrument Blanks:</u>

E.1 Numerous instrument blanks were analyzed due to the high levels of diesel in some of the samples. Diesel was not detected in the instruments blanks at a

concentration above the PQL and the results are considered acceptable.

### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

# G. Field Replicate Analyses:

- G.1 A QC limit for precision of ≤50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC08-SO4 and BTR-AOC08-S06 were utilized for field replicate analyses. Diesel was detected in sample BTR-AOC08-SO4 at a concentration of 732 ppm, and in sample BTR-AOC08-S06 at a concentration of 1670 ppm. The %RPD of this replicate analyses is 78%, exceeding the QC criteria of <50%. It is not known what effect this will have on the quality of the data.
- G.3 Samples BTR-AOC09-S03 and BTR-AOC09-S10 were also utilized for field replicate analyses. The results met all applicable QC criteria, and the results are considered acceptable.

### H. Surrogate Recoveries:

H.1 Surrogate recoveries were calculated by the reviewer using peak height due to incorrect area integration of the surrogate in many of the samples. All surrogate recoveries were calculated referencing the average surrogate peak height from the initial calibration. All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

#### 1. Matrix Spike/Matrix Spike Duplicate:

- 1.1 Sample number BTR-AOC09-S09 was used for the soil matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

### J. System Performance:

- J.1 Due to the high concentration of diesel detected in some of the samples, a longer GC bakeout time should have been employed to assist in eliminating carryover of diesel in one of the samples.
- J.2 No problems with system performance were observed for all project sample analyses.

### K. Quantitation and Identification:

- K.1 The method blank and samples exhibited a raised baseline in the diesel retention time window caused by probable hydrocarbon contamination. The PQLs have been increased by the laboratory to reflect this contamination. It is the opinion of the reviewer that this will have no effect on the quality of the data.
- K.2 The laboratory reported detected results of 140 ppm of diesel in sample BTR-AOC08-S02. The laboratory indicated that the detected results may be due to

carryover from the previous high level sample. It is also the opinion of the reviewer that the detected peaks in the sample are due to carryover. Therefore, the detected result for diesel is qualified "R" as rejected, and unusable, and the detected result has been changed to reflect the sample PQL by the reviewer on the summary result page.

- K.3 The laboratory reported detected results of 50 ppm for diesel in sample BTR-AOC09-S06. It is the opinion of the reviewer that it was the laboratory's intention to report the result as "<50 ppm", but inadvertently left off the "<" symbol when transcribing the result onto the summary result page. It has been corrected on the summary result page by the reviewer.
- K.4 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for the project samples. Listed below are the sample results where discrepancies exist.

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC08-S01	12,000 ppm	6,200 ppm
BTR-AOC08-S02	140 ppm	<80 ppm
BTR-AOC08-S03	310 ppm	540 ppm
BTR-AOC08-S04	650 ppm	730 ppm
BTR-AOC08-S06	1500 ppm	1,670 ppm
BTR-AOC09-S06	50 ppm	<50 ppm

It is the opinion of the reviewer that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for diesel which indicates that inconsistent quantitation procedures may have been used.

K.5 No other problems were observed with compound quantitation and identification.

# L. <u>Conclusion:</u>

- L.1 Diesel was not detected in the method blank at the PQL, but the blank was contaminated with lube oil from a previous sample.
- L.2 Diesel was detected in four samples: BTR-AOC08-S01 at 6200 ppm, BTR-AOC08-S03 at 540 ppm, BTR-AOC08-S04 at 730 ppm and BTR-AOC08-S06 at 1670 ppm as calculated by the reviewer.
- L.3 The PQL of the individual samples was increased by the laboratory to account for the raised baseline present within the retention time window of diesel.



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### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Diesel by EPA Method 8015M

**MATRIX:** 

Soil

DATE:

May 2, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 2 soil samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 479). Requested analyses were for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on September 6, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC9-2\$12-1.5	1752	Soil
BTR-AOC9-2S11-1.5	1754	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The laboratory did not include sample BTR-AOC9-2S11-1.5 on the results summary page. All results reported by the reviewer were obtained from the sample worksheets.

It should be noted that all quantitation limits reported by the laboratory for the project soil samples (<50 ppb) were higher than those specified in the Project Sampling and Analysis Plan (<10 ppb). Since the low point of the initial calibration was 50 ppm, the laboratory adjusted the practical quantitation limit (PQL) to 50. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

# B. Initial Calibration:

B.1 The laboratory performed a 3 point initial calibration on GC instrument ICF6 on August 29, 1993. The range of the initial calibration was from 100 ppm to 10,000 ppm. Due to the sensitivity present at the 100 ppm initial calibration standard, the practical quantitation limit (PQL) of 50 ppm does not need to be raised to the low point of this initial calibration (100 ppm). All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 9.04 was calculated using calibration factors determined from the initial calibration, and is within the recommended QC limit of 20.0%. However, since the initial calibration is only a 3 point calibration curve, all detected results are qualified "J" as estimated and usable for limited purposes.

# C. <u>Continuing Calibration:</u>

C.1 The continuing calibration standards met all the QC criteria and are considered acceptable.

# D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

# E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

# F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

#### G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analysis with this project sample set.

### H. Surrogate Recoveries:

H.1 Surrogate recoveries met applicable QC criteria and the results are considered acceptable.

- I. <u>Matrix Spike/Matrix Spike Duplicate:</u>
  - I.1 Sample number BTR-AOC9-2S12-1.5 was used for the matrix spike/matrix spike duplicate analyses.
  - 1.2 The laboratory did not submit the MS/MSD results on the summary results page. All results reported by the reviewer were obtained from the sample worksheets.
  - 1.3 The reviewer could not verify the reintegrated area of the matrix spike duplicate sample because it was not submitted by the laboratory. It is the opinion of the reviewer that this will not affect the quality of the data.
- J. System Performance:
  - J.1 No problems with system performance were observed for all project sample analyses.
- K. Quantitation and Identification:
  - K.1 The laboratory reported a detected result of 520 ppm for diesel in sample BTR-AOC9-2S11-1.5. This sample was not reported on the data summary form, and the information was obtained from the sample worksheet by the reviewer.
  - K.2 Since the laboratory analyzed only a 3 point initial calibration, all detected results are qualified "J" as estimated and usable for limited purposes.
  - K.3 No other problems were observed with compound quantitation and identification.
- L. Conclusion:
  - L.1 Diesel was detected at a concentration of 520 ppm in sample BTR-AOC9-2S11-1.5.
  - L.2 Due to problems with the initial calibration, all detected results are qualified "J" as estimated and usable for limited purposes.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Timothy Vonnahme

**ANALYSIS:** 

Diesel by EPA Method 8015M

MATRIX:

Water and Soil

DATE:

April 20, 1994

### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Six of the samples were requested for diesel by the semivolatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for diesel by USEPA Method 8015M (modified) (GC/FID) on August 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC09-SW01	316	Water
BTR-EB-04	308	Water
BTR-AOC10-SW01	304	Water
BTR-LF01-S01	322	Soil
BTR-LF04-S01	326	Soil
BTR-EB-05	328	Water

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following set of QC sample designations were included in project documentation: sample numbers BTR-EB-04 and BTR-EB-05 were designated as field equipment blanks.

It should be noted that the laboratory reported results for samples BTR-LF01-S01 and BTR-LF04-S01 only, stating that samples BTR-AOC09-SW01, BTR-AOC10-SW01, BTR-EB04 and BTR-EB-05 were not reported due to extraction and/or instrument problems. By reviewing

the data it appears that the samples listed by the laboratory as being not reported were reanalyzed at a later time (evident by the raw data submitted by the laboratory). However, the reviewer could not locate the raw data for sample BTR-LF01-S01 reported by the laboratory, even though this sample was reported with results for the matrix spike/matrix spike duplicate QC sample.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8015M, and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

# A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

# B. <u>Initial Calibration:</u>

- B.1 The laboratory attempted to perform a 6 point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 50 ppm to 10,000 ppm. The 500 ppm and the 200 ppm standards were not used due to autosampler injection errors. A percent relative standard deviation (%RSD) of 48.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 48.3% exceeds the recommended QC criteria of 20.0%. Since the %RSD exceeds the recommended criteria, the detected results for diesel in all the samples are qualified "J" as estimated and usable for limited purposes.
- B.2 Due to an increase in sensitivity, a second 3 point initial calibration on GC instrument ICF6 was performed on August 29, 1993. The range of this initial calibration was from 100 ppm to 10,000 ppm. A percent relative standard deviation (%RSD) of 9.07 was calculated using calibration factors determined from the initial calibration. Since this initial calibration was performed after the samples were analyzed, it can not be used for quantitation of this sample set, but can be used as a reference to explain the increased sensitivity in this sample set.

### C. <u>Continuing Calibration</u>:

C.1 Due to the increase in sensitivity after the initial calibration, the percent recoveries of the three continuing calibrations (169-178%) exceeded the QC criteria (75-125%). When referenced to the 3 point initial calibration (8/29/93) analyzed after the samples, the percent recovery range of the continuing calibrations is 119-125%. All samples were quantitated using the closest continuing calibration standards. Since the percent recoveries of the continuing calibrations exceeded the QC criteria, all detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and usable for limited purposes.

D. Laboratory Blanks:

D.1 Diesel was not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

E. Instrument Blanks:

E.1 Diesel was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

- F.1 Samples BTR-EB-04 and BTR-EB-05 were designated as field equipment blanks for this project sample set.
- F.2 Diesel was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

G. Field Replicate Analyses:

G.1 No field replicate samples were associated with this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

- I.1 Sample number BTR-LF01-S01 was used for the matrix spike/matrix spike duplicate analyses. No water matrix spike/matrix spike duplicate analyses were submitted.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

- J.1 The laboratory reported an autosampler malfunction during the injection of two initial calibration standards.
- J.2 The laboratory reported extraction and/or instrument problems for samples BTR-AOC09-SW01, BTR-AOC10-SW01, BTR-EB-04 and BTR-EB05 resulting in non-submittal of sample results by the laboratory.
- J.3 No other problems with system performance were observed for all project sample analyses.

K. Quantitation and Identification:

- K.1 All samples were quantitated using the closest continuing calibration standard.
- K.2 The laboratory did not report results for samples BTR-AOC09-SW01, BTR-AOC10-SW01, BTR-EB-04 and BTR-EB-05 stating that due to extraction and/or instrument problems no quantitative results were available. However, by going

through the data the reviewer found that the laboratory did reanalyze the four samples noted above (evident by the submitted raw data). Listed below are the samples that were not reported by the laboratory, but were reported by the reviewer.

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC09-SW01		<2500 ppm
BTR-AOC10-SW01		<2500 ppm
BTR-EB-04		<2500 ppm
BTR-EB-05		<2500 ppm

- K.3 The reviewer was unable to locate the raw data for sample BTR-LF01-S01, even though this sample was reported with results for the matrix spike/matrix spike duplicate QC sample. Therefore, the PQL for this sample is qualified "R" as rejected and unusable.
- K.4 The PQL for some of the samples was raised due to interference present within the retention time window of diesel. It is the opinion of the reviewer that this will have no affect on the quality of the data.
- K.5 No other problems were observed with compound quantitation and identification.

### L. <u>Conclusion:</u>

- L.1 Results for sample BTR-LF01-S01 are qualified "R" as rejected and unusable since the reviewer was unable to locate the raw data for verification of sample results.
- L.2 Results for the three water samples were not reported by the laboratory, but were calculated by the reviewer and are reported in Section K.1.
- L.3 Due to previously mentioned problems with the initial calibration and continuing calibrations, the PQL for all samples are qualified "J" as estimated and usable for limited purposes.
- L.4 Diesel was not detected in any of the samples at a concentration above the PQL.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

# DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

ANALYSIS:

Gasoline by USEPA Method 8015M

MATRIX:

Water and Soil

DATE:

April 26, 1994

# I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 10 soil and 2 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 476). All of the samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 6 and September 7, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-EB-06	1690	Water
BTR-AOC15-2S04	1692	Soil
BTR-AOC15-2S05	1694	Soil
BTR-AOC10-2SD02	1696	Soil
BTR-AOC10-2S06-1.5	1698	Soil
BTR-AOC10-2S07	1700	Soil
BTR-AOC10-S208	1702	Soil
BTR-AOC10-2S09	1704	Soil
BTR-SS14-2S05	1706	Soil
BTR-SS14-2S06-3	1708	Soil
BTR-SS14-2S07	1710	Soil
BTR-AB-03	1712	Water

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-2S08 and BTR-AOC10-2S09 were designated as field replicates, sample number BTR-EB-06 was designated as an equipment blank, and sample number BTR-AB-03 was designated as an ambient blank.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

### II. VALIDITY & COMMENTS:

## A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

# B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the water samples are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.

# C. <u>Continuing Calibrations:</u>

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze

for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

# D. <u>Laboratory Blanks</u>:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

### E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

### F. Field Blanks:

- F.1 Sample number BTR-EB-06 was designated as an equipment blank and sample number BTR-AB-03 was designated as an ambient blank.
- F.2 Gasoline was not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.
- F.3 Gasoline was not detected in the ambient blank at a concentration above the PQL and the results are considered acceptable.

### G. Field Replicate Analysis:

- G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC10-2S08 and BTR-AOC10-2S09 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

# H. <u>Surrogate Recoveries:</u>

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

### I. Matrix Spike/Matrix Spike Duplicate Analyses:

1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

### J. <u>System Performance:</u>

J.1 No problems with system performance were observed for the project samples.

### K. Quantitation and Identification:

- K.1 The low point in the gasoline initial calibration performed on system 3-4 on August 24, 1994 was 100 ppb. Therefore, the PQL for gasoline in all of the samples and blanks analyzed on system 3-4 has been raised from 1 ppm to 2 ppm.
- K.2 The laboratory reported a detected result for gasoline in samples BTR-AOC10-2SD02 and indicated that the detected result may be due to diesel fuel. It is the opinion of the reviewer that the detected peaks in this sample are probably due to higher molecular weight hydrocarbons. Therefore, the detected results for gasoline in this sample is qualified "J" as estimated and usable for limited purposes.
- K.3 The laboratory reported a detected result of 22 ppm for gasoline in sample BTR-AOC10-2S06-1.5. It is the opinion of the reviewer that the detected peaks in this sample are probably of biogenic origin. Therefore, the detected result for gasoline in this sample is qualified "]" as estimated and usable for limited purposes.
- K.4 The laboratory did not report a detected result above 1 ppm for gasoline in sample BTR-SS14-2S07. The laboratory reported detected results for the BTEX compounds in this sample and the sample chromatogram exhibits a typical hydrocarbon elution pattern. It is the opinion of the reviewer that this sample contains a combination of gasoline and higher molecular weight hydrocarbons calculated at a concentration of 700 ppm. The detected result for gasoline in this sample which was calculated by the reviewer is qualified "J" as estimated and usable for limited purposes.
- K.5 No other problems were observed with compound quantitation and identification.

### L. <u>Conclusion:</u>

- L.1 Due to the large percent RSDs in the initial calibrations and the lack of continuing calibrations, the detected results and the PQL for all project samples and blanks are qualified "J" as estimated and usable for limited purposes.
- L.2 The low point in the initial calibration performed on system 3-4 was 100 ppb. Therefore, the PQL for gasoline in all of the project samples and blanks analyzed on system 3-4 has been raised to 2 ppm.

# ICF KAISER ENGINEERS

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# DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

ANALYSIS:

Gasoline by USEPA Method 8015M

MATRIX:

Soil

DATE:

April 18, 1994

# I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 2 soil samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 479). Both of the soil samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 7, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>	
BTR-AOC9-2S14.5*	1752	Soil	
BTR-AOC9-2S11-1.5	1754	Soil	

^{*} The ICF Site No. on the chain of custody record appears to be BTR-AOC9-2S12-1.5 which is not the same number assigned by the laboratory.

The analytical results for soils were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the

Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

#### II. VALIDITY & COMMENTS:

### A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

### B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples are qualified "J" as estimated and are usable for limited purposes.

## C. <u>Continuing Calibrations:</u>

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

#### D. <u>Laboratory</u> Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

### E. <u>Instrument Blanks</u>:

**E.1** Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

- F. Field Blanks:
  - F.1 There were no field blanks submitted for analysis with the project sample set.
- G. Field Replicate Analysis:
  - G.1 There were no field replicate samples associated with this project sample set.
- H. Surrogate Recoveries:
  - H.1 All of the surrogate QC recovery criteria were met for all project samples.
- I. Matrix Spike/Matrix Spike Duplicate Analyses:
  - 1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.
- J. System Performance:
  - J.1 No problems with system performance were observed for the project samples.
- K. Quantitation and Identification:
  - K.1 The laboratory reported a detected result for gasoline in sample BTR-AOC9-2S11-1.5 and indicated that the detected result may be due to diesel fuel. It is the opinion of the reviewer that the detected peaks in this sample are probably due to higher molecular weight hydrocarbons. Therefore, the detected result for gasoline in this sample is qualified "J" as estimated and usable for limited purposes.
    - K.2 No other problems were observed with compound quantitation and identification.
- L. <u>Conclusion:</u>
  - L.1 Due to a large %RSD in the initial calibration and the lack of continuing calibrations for gasoline, all detected results and the PQL for all project samples are qualified "J" as estimated and usable for limited purposes.



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#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

Gasoline by USEPA Method 8015M

MATRIX:

Water & Soil

DATE:

May 3, 1994

### I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 12 soil samples and 1 water sample from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387) for gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on August 24 through August 28, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC15-S01	364	Soil
BTR-AOC15-S02	366	Soil
BTR-AOC15-S03	369	Soil
BTR-AOC07-S03	370	Soil
BTR-AOC07-S04	371	Soil
BTR-AOC07-S05	372	Soil
BTR-AOC07-S06	373	Soil
BTR-AOC07-S07	374	Soil
BTR-TB-05	3 <b>75</b>	Water
BTR-A0C14-SD01	3 <b>78</b>	Soil
BTR-AOC14-S04	380	Soil
BTR-AOC14-SD02	3 <b>82</b>	Soil
BTR-AOC14-S03	386	Soil

The laboratory did not submit any raw data or data summary sheets for the gasoline fraction for sample numbers BTR-AOC07-S03 (370), BTR-AOC07-S04 (371), BTR-AOC07-S05 (372), BTR-AOC07-S06 (373), and BTR-AOC07-S07 (374).

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-S03 and BTR-AOC14-S04 were designated as field replicates and sample number BTR-TB-05 was designated as a travel blank.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the project samples are qualified "J" as estimated and are usable for limited purposes.

C. Continuing Calibrations:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the

instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

# D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

## E. <u>Instrument Blanks:</u>

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

## F. Field Blanks:

- F.1 Sample number BTR-TB-05 was designated as a travel blank.
- F.2 Gasoline was not detected in the travel blank at a concentration above the PQL and the results are considered acceptable.

# G. Field Replicate Analysis:

- G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC14-S03 and BTR-AOC14-S04 were utilized for field replicate analysis. Due to carryover in these two samples, the PQL was raised by the reviewer and the results of the field replicate analyses could not be evaluated.

### H. Surrogate Recoveries:

- H.1 Because of poor copy quality on the raw data quantitation reports and chromatograms, the surrogate recovery in samples BTR-AOC15-S01 and BTR-AOC14-SD02 could not be verified by the reviewer.
- H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

### I. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>

1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

#### J. **System Performance:**

J.1 The laboratory did not perform any instrument blanks between several of the samples which contained high levels of gasoline. It is the opinion of the reviewer that this resulted in carryover and created interference causing an elevated baseline in some of the samples which probably did not contain gasoline. Therefore, the PQL in sample numbers BTR-AOC14-S04 and BTR-AOC14-S03 have been adjusted to compensate for the carryover.

J.2 No other problems with system performance were observed for the project sample analyses.

# K. Quantitation and Identification:

- K.1 Because of poor copy quality of the raw data for sample numbers BTR-AOC15-S01 and BTR-AOC14-SD02, the quantitation of these samples could not be verified by the reviewer. The laboratory did not respond to several requests to resubmit the raw data. Therefore, the PQL for these two samples is qualified "R" as rejected and is unusable.
- K.2 A discrepancy exists between the detected result reported by the laboratory (160 ppm) and the result regenerated by the reviewer (280 ppm) for sample number BTR-AOC15-S03. The laboratory indicated that the discrepancy is probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for gasoline which indicates that inconsistent quantitation procedures may have been used.
- K.3 Sample number BTR-AOC14-SD01 exhibited chromatographic peaks which, in the opinion of the laboratory and the reviewer, are of biogenic origin. Gasoline was not reported in this sample at a concentration above the PQL. Therefore, the PQL for gasoline in this sample has been raised to 90 ppm by the reviewer.
- K.4 No other problems were observed with compound quantitation and identification.

# L. Conclusion:

- L.1 Due to unreadable raw data for sample numbers BTR-AOC15-S02 and BTR-AOC14-SD02, the PQL for these two samples is qualified "R" as rejected and is unusable.
- L.2 Due to carryover from a previous analysis, the PQL for sample numbers BTR-AOC14-S04 and BTR-AOC14-S02 has been raised by the reviewer.
- L.3 Due to possible interference from biogenic material, the PQL for sample number BTR-AOC14-SD01 has been raised by the reviewer.
- L.4 Due to the large percent RSD in the initial calibration and the lack of continuing calibrations for the gasoline fraction, the detected results and the PQL for gasoline in all other project samples and blanks are qualified "J" as estimated and usable for limited purposes.



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### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

Gasoline by USEPA Method 8015M

**MATRIX:** 

Water and Soil

DATE:

April 7, 1994

# I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 389). All of the samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC14-SW01	398	Water
BTR-AOC14-S02	400	Soil
BTR-AOC14-S01	402	Soil
BTR-AOC14-SW02	406	Water
BTR-AOC14-SW03	410	Water
BTR-LF12-S02	412	Soil
BTR-LF12-S03	414	Soil
BTR-LF12-S01	416	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-SW02 and BTR-AOC14-SW03 were designated as field duplicates.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

# B. <u>Initial Calibration:</u>

- B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.
- B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the water samples are qualified "J" as estimated and are usable for limited purposes.

# C. <u>Continuing Calibrations:</u>

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the

instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

# D. <u>Laboratory Blanks</u>:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

# E. <u>Instrument Blanks:</u>

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

# F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

### G. Field Duplicate Analysis:

- G.1 A QC limit for precision of  $\leq$  20%, as measured by Relative Percent Difference (RPD) between water sample values, was specified for field duplicate comparability.
- G.2 Samples BTR-AOC14-SW02 and BTR-AOC14-SW03 were utilized for field duplicate analysis. The results of the field duplicate analyses met all applicable QC criteria and the results are considered acceptable.

### H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

# I. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>

1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

### J. <u>System Performance:</u>

J.1 No problems with system performance were observed for the project samples.

# K. Quantitation and Identification:

K.1 The low point in the gasoline initial calibration performed on system 3-4 on August 24, 1994 was 100 ppb. Therefore, the PQ'.s for gasoline in all of the water samples analyzed on system 3-4 have been raised from 50 ppb to 100 ppb.

K.2 No problems were observed with compound quantitation and identification.

# L. <u>Conclusion:</u>

- L.1 Gasoline was not detected above the PQL in any of the project samples.
- L.2 Due to previously mentioned problems with the initial calibration and the lack of continuing calibrations, the PQLs for all project samples are qualified "J" as estimated and usable for limited purposes.



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# DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Keith Strout

ANALYSIS:

Gasoline by USEPA Method 8015M

**MATRIX:** 

Soil

DATE:

April 21, 1994

# I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 475) for gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 7, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-LF03-2SD09	1678	Soil
BTR-LF03-2SD10	1680	Soil
BTR-AOC1-2S06	1682	Soil
BTR-AOC1-2S07	1684	Soil
BTR-AOC1-2S08	1686	Soil

The laboratory incorrectly listed the ICF site numbers for samples 1682, 1684, and 1686 on the data summary sheets as BTR-AOC1-2S06. The ICF site numbers have been corrected by the reviewer.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the project samples are qualified "J" as estimated and are usable for limited purposes.

C. <u>Continuing Calibrations:</u>

- C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.
- C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

### E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

# F. Field Replicate Analysis:

F.1 There were no field replicate samples associated with this project sample set.

# G. <u>Surrogate Recoveries:</u>

G.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

# H. Matrix Spike/Matrix Spike Duplicate Analyses:

H.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

### I. System Performance:

I.1 No problems with system performance were observed for the project sample analyses.

### J. Quantitation and Identification:

- J.1 The low point in the gasoline initial calibration performed on August 24, 1994 was 100 ppb. Therefore, the PQL for gasoline in all of the samples and blanks has been raised from 1 ppm to 2 ppm.
- J.2 The laboratory reported a detected result for gasoline in samples BTR-AOC1-2S07 and indicated that the detected result may be due to diesel fuel. It is the opinion of the reviewer that the detected peaks in this sample are probably due to higher molecular weight hydrocarbons. Therefore, the detected result for gasoline in this sample is qualified "J" as estimated and usable for limited purposes.
- J.3 No other problems were observed with compound quantitation and identification.

#### K. Conclusion:

K.1 Due to the large percent RSD in the initial calibration and the lack of continuing calibrations for the gasoline fraction, the detected results and the PQL for gasoline in all project samples and blanks are qualified "J" as estimated and usable for limited purposes.

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# DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

Gasoline by USEPA Method 8015M

MATRIX:

Water and Soil

DATE:

April 19, 1994

# I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 12 soil and 3 water samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 478). All of the soil samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 7 and Septembr 8, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-EB-07	1716	Water
BTR-EB-08	1720	Water
BTR-SS13-2S05	1724	Soil
BTR-SS13-2S06	1726	Soil
BTR-SS13-2S07	1728	Soil
BTR-SD08-2S11	1730	Soil
BTR-SD08-2S12	1732	Soil
BTR-SD08-2S13-4	1734	Soil
BTR-SD08-2S14-4	1736	Soil
BTR-SD08-2S15-5	1738	Soil
BTR-SD08-2S16-1	1740	Soil

BTR-LF04-2SW03	1748	Water
BTR-LF04-2SD04	1744	Soil
BTR-LF04-2SD03	1742	Soil
BTR-BKGD-2SD03	1746	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-2S11 and BTR-SD08-2S12 were designated as field replicates, sample numbers BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were designated as field replicates, and samples BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.

The analytical results for soils were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

# II. VALIDITY & COMMENTS:

# A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

### B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples are qualified "J" as estimated and are usable for limited purposes.

# C. <u>Continuing Calibrations</u>:

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the

instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

# D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

# E. <u>Instrument Blanks:</u>

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

### F. Field Blanks:

- F.1 Sample numbers BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.
- F.2 Gasoline was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

# G. Field Replicate Analysis:

- G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-SD08-2S11 and BTR-SD08-2S12 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.
- G.3 Samples BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

#### H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met for all project samples and the results are considered acceptable.

### I. Matrix Spike/Matrix Spike Duplicate Analyses:

1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

# J. <u>System Performance:</u>

J.1 The laboratory reported a detected result for gasoline of 1 ppm in samples BTR-SD08-2S12 and BTR-SD08-2S16-1. It is the opinion of the reviewer that the detected peaks in these two samples are due to carryover of hydrocarbons from a

sample analyzed prior to these analyses. Therefore, the detected results in these two samples have been changed to reflect that gasoline was not detected at a concentration above the PQL.

J.2 No other problems with system performance were observed for the project samples.

# K. Quantitation and Identification:

- K.1 The laboratory reported detected results for gasoline in samples BTR-SS13-2S07 and BTR-LF04-2SD04 and indicated that the detected results may be due to diesel fuel. It is the opinion of the reviewer that the detected peaks in these samples are probably due to higher molecular weight hydrocarbons. Therefore, the detected results for gasoline in these samples are qualified "J" as estimated and usable for limited purposes.
- K.2 No other problems were observed with compound quantitation and identification.

### L. Conclusion:

- L.1 Due to carryover from a previous sample, the detected results in samples BTR-SD08-2S12 and BTR-SD08-2S16-1 have been changed to reflect that gasoline was not detected in these samples at a concentration above the PQL.
- L.2 Due to a large %RSD in the initial calibration and the lack of continuing calibrations for gasoline, all detected results and the PQL for all project samples are qualified "J" as estimated and usable for limited purposes.

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# DATA VALIDATION REPORT

**PROGRAM:** 

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruva, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

Gasoline by USEPA Method 8015M

**MATRIX:** 

Water and Soil

DATE:

April 14, 1994

#### 1. **INTRODUCTION:**

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 13 soil samples and 1 water sample from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). All of the samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on August 23 and August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-SS14-SW01	336	Water
BTR-SS14-S01	339	Soil
BTR-SS14-S02	341	Soil
BTR-SS14-S03	343	Soil
BTR-SS14-S04	345	Soil
BTR-SS14-S06	347	Soil
BTR-SS14-SD01	349	Soil
BTR-AOC10-SD01	351	Soil
BTR-AOC10-S01	353	Soil
BTR-AOC10-S02	355	Soil
BTR-AOC10-S03	357	Soil

BTR-AOC10-S04	359	Soil
BTR-AOC10-S05	361	Soil
BTR-AOC10-S06	363	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-S04 and BTR-AOC10-S06 were designated as field replicates, and sample numbers BTR-SS14-S03 and BTR-SS14-S06 were also designated as field replicates.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

#### II. VALIDITY & COMMENTS:

# A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. Initial Calibration:

- B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.
- B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the water samples are qualified "J" as estimated and are usable for limited purposes.

# C. Continuing Calibrations:

- C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.
- C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

# D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

#### E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

# F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

#### G. <u>Field Replicate Analysis:</u>

- G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC10-S04 and BTR-AOC10-S06 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.
- G.3 Samples BTR-SS14-S03 and BTR-SS14-S06 were also utilized for field replicate analysis. The results of the field replicate analyses (71% RPD) exceed the QC criteria. The large variability in the results is probably due to carryover contamination between samples. It is not known what affect this will have on the quality of the data.

#### H. Surrogate Recoveries:

H.1 Several of the surrogate recoveries could not be calculated using the FID detector because of hydrocarbon interference. The laboratory used the ECD detector to calculate the surrogate recoveries of samples exhibiting interference on the FID detector. However, the ECD response for the Surrogate (BFB) was saturated for all of the samples. Listed below are the samples that exhibited hydrocarbon

interference.

ICF Sample No.	<u>Laboratory Recovery</u>
BTR-SS14-S02	103
BTR-SS14-S03	96
BTR-SS14-S04	97
BTR-SS14-S06	94
BTR-SS14-SD01	103
BTR-AOC10-SD01	100
BTR-AOC10-S01	100

It is the opinion of the reviewer that this will not affect the quality of the data because there is no affect on the gasoline quantitation.

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

# I. Matrix Spike/Matrix Spike Duplicate Analyses:

1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

### J. System Performance:

- J.1 The laboratory did not perform any instrument blanks between several of the samples which contained high levels of gasoline. It is the opinion of the reviewer that this resulted in carryover in some of the samples, and created interference and an elevated baseline in some of the samples which probably did not contain gasoline. Therefore, all of the detected results are qualified "J" as estimated and usable for limited purposes, and some of the PQLs have been adjusted to compensate for the carryover.
- J.2 No other problems with system performance were observed for the project samples.

#### K. Quantitation and Identification:

- K.1 The low point in the gasoline initial calibration performed on system 3-4 on August 24, 1994 was 100 ppb. Therefore, the PQLs for gasoline in all of the samples and blanks analyzed on system 3-4 have been raised from 50 ppb to 100 ppb.
- K.2 Gasoline was detected in samples BTR-SS14-S02, BTR-SS14-S03, and BTR-SS14-S04 at a concentration above the initial calibration range of the instrument. The laboratory did not analyze a secondary dilution for these samples. Therefore, the detected results for these samples are qualified "J" as estimated and usable for limited purposes.
- K.3 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for some of the project samples. Listed

below are the sample results where discrepancies exist. Results are reported in parts per million (ppm).

ICF Site No.	Laboratory Results	Validation Results
BTR-SS14-S02	250	208
BTR-SS14-S04	170	118
BTR-SS14-S06	130	190
BTR-AOC10-SD01	< 2	27
BTR-AOC10-S01	3.2	46

The laboratory indicated that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for gasoline which indicates that inconsistent quantitation procedures may have been used. The detected amounts in samples BTR-AOC10-SD01 and BTR-AOC10-S01 are probably due to carryover from previous samples, therefore, the PQLs have been increased accordingly by the reviewer.

K.4 No other problems were observed with compound quantitation and identification.

# L. <u>Conclusion:</u>

- L.1 Due to carryover from previous samples, the PQL in some of the project samples have been increased by the reviewer.
- L.2 Due to previously mentioned problems with the initial calibration, the lack of continuing calibrations, and carryover in some of the samples, the detected results and PQL for all project samples are qualified "J" as estimated and usable for limited purposes.



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# **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

Gasoline by USEPA Method 8015M

MATRIX:

Water and Soil

DATE:

April 13, 1994

### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 6 soil and 3 water samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 395). All of the samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 1 and September 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-LF04-SW01	1326	Water
BTR-LF04-SW02	1330	Water
BTR-LF04-S02	1334	Soil
BTR-LF04-SD01	1336	Soil
BTR-LF04-SD02	1338	Soil
BTR-LF01-SD01	1340	Soil
BTR-LF01-SD02	1342	Soil
BTR-LF01-SD03	1344	Soil
BTR-TB-04	1346	Water

The following QC sample designations were included in project documentation: sample

number BTR-TB-04 was designated as a travel blank.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples analyzed on system 3-4 are qualified "J" as estimated and are usable for limited purposes.

C. <u>Continuing Calibrations:</u>

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should

have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

# D. <u>Laboratory Blanks:</u>

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

## E. <u>Instrument Blanks:</u>

**E.1** Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

### F. Field Blanks:

F.1 Gasoline was not detected in the travel blank at a concentration above the PQL and the results are considered acceptable.

# G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

#### H. Surrogate Recoveries:

- H.1 A discrepancy exists between the surrogate recovery reported by the laboratory (84%) and the surrogate recovery calculated by the reviewer (104%) for sample number BTR-TB-04. This is not expected to have an affect on the data since the surrogate recovery met all of the applicable QC criteria.
- H.2 All of the surrogate QC recovery criteria were met for all other project samples and the results are considered acceptable.

## I. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>

1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

#### J. System Performance:

J.1 No problems with system performance were observed for the project samples.

### K. Quantitation and Identification:

K.1 No problems were observed with compound quantitation and identification.

#### L. Conclusion:

L.1 Gasoline was not detected above the PQL in any of the project samples.

L.2 Due to the lack of continuing calibrations, the PQL for all project samples are qualified "J" as estimated and usable for limited purposes.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

# DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

Gasoline by USEPA Method 8015M

**MATRIX:** 

Soil

DATE:

April 12, 1994

## I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 16 soil samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 394). All of the soil samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 1 and September 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

PTD 40000 004	
BTR-AOC08-S01 1290 Soil	
BTR-AOC08-S02 1292 Soil	
BTR-AOC08-S03 1294 Soil	
BTR-AOC08-S04 1296 Soil	
BTR-AOC08-S05 1298 Soil	
BTR-AOC08-S06 1300 Soil	
BTR-AOC09-S01 1302 Soil	
BTR-AOC09-S02 1304 Soil	
BTR-AOC09-S03 1306 Soil	
BTR-AOC09-S10 1308 Soil	
BTR-AOC09-S04 1310 Soil	

BTR-AOC09-S05	1312	Soil
BTR-AOC09-S06	1314	Soil
BTR-AOC09-S07	1322	Soil
BTR-AOC09-S08	1316	Soil
BTR-AOC09-S09	1318	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC08-S04 and BTR-AOC08-S06 were designated as field replicates, and sample numbers BTR-AOC09-S03 and BTR-AOC09-S10 were also designated as field replicates.

The analytical results for soils were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

### II. VALIDITY & COMMENTS:

# A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the samples are qualified "J" as estimated and are usable for limited purposes.

# C. <u>Continuing Calibrations:</u>

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for

the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

# D. <u>Laboratory</u> Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

# E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

# F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

### G. Field Replicate Analysis:

- G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC08-S04 and BTR-AOC08-S06 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.
- G.3 Samples BTR-AOC09-S03 and BTR-AOC09-S10 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

### H. <u>Surrogate Recoveries:</u>

H.1 Discrepancies exist between the surrogate recoveries reported by the laboratory and the surrogate recoveries calculated by the reviewer for some of the project samples. The recoveries reported by the laboratory and the recoveries calculated by the reviewer are listed below.

ICF Sample No.	Laboratory Recovery	Validation Recovery
BTR-AOC09-S09	123	81
BTR-AOC08-S01	98	100
BTR-AOC08-S04	82	103
BTR-AOC08-S06	79	100

This is not expected to have an affect on the data since the surrogate recoveries met all of the applicable QC criteria.

- H.2 All of the surrogate QC recovery criteria were met for all other project samples.
- I. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>
  - I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.
- J. System Performance:
  - J.1 The laboratory indicated that the data acquisition for sample BTR-AOC09-S08 (1316) was interrupted during analysis. No data is available because the laboratory did not reanalyze this sample.
  - J.2 No other problems with system performance were observed for the project samples.
- K. Quantitation and Identification:
  - K.1 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for some of the project samples. Listed below are the sample results where discrepancies exist. Results are reported in parts per million (ppm).

ICF Site No.	Laboratory Results	<u>Validation Results</u>
BTR-AOC08-S01	9	19
BTR-AOC08-S03	60	295
BTR-AOC08-S04	62	52
BTR-AOC08-S06	90	65

The laboratory indicated that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for gasoline which indicates that inconsistent quantitation procedures may have been used.

- K.2 The laboratory raised the PQL for gasoline in sample BTR-AOC08-S05 to 4 ppm because of interference. It is the opinion of the reviewer that the interference is due to biogenic material in the sample.
- K.3 No other problems were observed with compound quantitation and identification.
- L. Conclusion:
  - L.1 The laboratory did not provide data for sample BTR-AOC08-S08 (1316) because data acquisition was interrupted during analysis of this sample. The laboratory did not reanalyze the sample.
  - L.2 Due to previously mentioned problems with the initial calibration, continuing calibration, and sample quantitation, all detected results and PQLs for all project samples are qualified "J" as estimated and usable for limited purposes.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

### **DATA VALIDATION REPORT**

**PROGRAM:** 

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

**LABORATORY:** 

Friedman & Bruva, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

Gasoline by USEPA Method 8015M

MATRIX:

Soil

DATE:

April 11, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 1 soil sample from the Barter Island site on August 21, 1993 (referenced chain of custody record No. 393). The sample required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on September 1, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC09-SD01	1320	Soil

The analytical result for the soil sample was reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil

samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

#### II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.

## C. <u>Continuing Calibrations:</u>

- C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.
- C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

### D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

## E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with the project sample set.

- G. Field Replicate Analysis:
  - G.1 There were no field replicate samples associated with this project sample set.
- H. <u>Surrogate Recoveries:</u>
  - H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.
- 1. Matrix Spike/Matrix Spike Duplicate Analyses:
  - I.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.
- J. System Performance:
  - J.1 No problems with system performance were observed for this project sample set.
- K. Quantitation and Identification:
  - K.1 No problems were observed with compound quantitation and identification.
- L. Conclusion:
  - L.1 Gasoline was not detected above the PQL in the project sample.
  - L.2 Due to the lack of continuing calibrations, the PQL for the project sample is qualified "J" as estimated and usable for limited purposes.

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# DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

ANALYSIS:

Gasoline by USEPA Method 8015M

MATRIX:

Water and Soil

DATE:

April 20, 1994

### I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Four of the water samples and two of the soil samples required gasoline analysis by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for gasoline by USEPA Method 8015M (modified) (GC/FID) on August 23 and August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC09-SW01	317	Water
BTR-EB-04	311	Water
BTR-AOC10-SW01	307	Water
BTR-LF01-S01	322	Soil
BTR-LF04-S01	326	Soil
BTR-EB-05	332	Water

Results are not available for sample BTR-LF01-S01 because the laboratory did not analyze this sample.

The following QC sample designations were included in project documentation: sample numbers BTR-EB-04 and BTR-EB-05 were designated as equipment blanks.

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M, and the Project Sampling and Analysis Plan.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

## II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration:</u>

- B.1 The laboratory analyzed a four point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 50 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 31.8 was calculated using calibration factors determined from the initial calibration. The 31.8% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the soil samples are qualified "J" as estimated and are usable for limited purposes.
- B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 100 ppb to 5000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 27.4 was calculated using calibration factors determined from the initial calibration. The 27.4% RSD exceeds the recommended 20.0% RSD, therefore, the detected results for gasoline in all of the water samples are qualified "J" as estimated and are usable for limited purposes.

### C. <u>Continuing Calibrations:</u>

C.1 The laboratory did not perform any continuing calibrations for the gasoline fraction. The laboratory indicated that since the same injection was used to analyze for gasoline and the BTEX compounds, the continuing calibration response on the FID for the BTEX compounds and the surrogate were used to determine linearity for the gasoline fraction. It is the opinion of the reviewer that the laboratory should have run continuing calibrations for the gasoline fraction, however, the response for the BTEX compounds and the surrogate compound can be used to determine if the

instrument has maintained linearity for the gasoline fraction. Because the laboratory did not perform any continuing calibrations specifically for the gasoline fraction, the detected results and the practical quantitation limits (PQLs) are qualified "J" as estimated and are usable for limited purposes.

C.2 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

# D. Laboratory Blanks:

D.1 Gasoline was not detected in the method blanks at a concentration above the POL and the results are considered acceptable.

## E. Instrument Blanks:

E.1 Gasoline was not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

# F. Field Blanks:

- F.1 Sample numbers BTR-EB-04 and BTR-EB-05 were designated as equipment blanks.
- F.2 Gasoline was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

# G. Field Replicate Analysis:

G.1 There were no field replicate analyses associated with this project sample set.

#### H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

# 1. Matrix Spike/Matrix Spike Duplicate Analyses:

1.1 The laboratory did not perform any matrix spike/matrix spike duplicate analyses for the gasoline fraction.

#### J. System Performance:

J.1 No problems with system performance were observed for the project samples.

# K. Quantitation and Identification:

- K.1 The low point in the gasoline initial calibration performed on system 3-4 on August 24, 1994 was 100 ppb. Therefore, the PQL for gasoline in all of the samples and blanks analyzed on system 3-4 has been raised from 50 ppb to 100 ppb.
- K.2 Results are not available for sample number BTR-LF01-S01 because the laboratory did not analyze this sample.
- K.3 No other problems were observed with compound quantitation and identification.

## L. <u>Conclusion:</u>

- L.1 Gasoline was not detected at a concentration above the PQL in any of the project samples.
- L.2 Due to the lack of continuing calibrations, the PQL for all project samples and blanks are qualified "J" as estimated and usable for limited purposes.
- L.3 The low point in the initial calibration performed on system 3-4 was 100 ppb. Therefore, the PQL for gasoline in all of the project samples and blanks analyzed on system 3-4 has been raised to 100 ppb.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

ANALYSIS:

BTEX compounds by USEPA Method 8020

MATRIX:

Soil

DATE:

April 12, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 16 soil samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 394). All of the soil samples required analysis for the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 1 and September 2, 1993 for the BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC08-S01	1290	Soil
BTR-AOC08-S02	1292	Soil
BTR-AOC08-S03	1294	Soil
BTR-AOC08-S04	1296	Soil
BTR-AOC08-S05	1298	Soil
BTR-AOC08-S06	1300	Soil
BTR-AOC09-S01	1302	Soil
BTR-AOC09-S02	1304	Soil
BTR-AOC09-S03	1306	Soil
BTR-AOC09-S10	1308	Soil
BTR-AOC09-S04	1310	Soil
BTR-AOC09-S05	1312	Soil
BTR-AOC09-S06	1314	Soil

BTR-AOC09-S07	1322	Soil
BTR-AOC09-S08	1316	Soil
BTR-AOC09-S09	1318	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC08-S04 and BTR-AOC08-S06 were designated as field replicates, and sample numbers BTR-AOC09-S03 and BTR-AOC09-S10 were also designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for soils were reported with an adjustment for moisture content.

#### II. VALIDITY & COMMENTS:

#### A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples are qualified "J" as estimated and are usable for limited purposes.

#### C. <u>Continuing Calibrations:</u>

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

## D. <u>Laboratory Blanks:</u>

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

### E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

# F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

#### G. Field Replicate Analysis:

- G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC08-S04 and BTR-AOC08-S06 were utilized for field replicate analysis. The RPD for ethylbenzene (120%) and the RPD for xylene (66%) detected in the two samples exceeds the QC limit for precision. It is not known what affect this has on the quality of the data.
- G.3 Samples BTR-AOC09-S03 and BTR-AOC09-S10 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

# H. Surrogate Recoveries:

H.1 Discrepancies exist between the surrogate recoveries reported by the laboratory and the surrogate recoveries calculated by the reviewer for some of the project samples. The recoveries reported by the laboratory and the recoveries calculated by the reviewer are listed below.

ICF Sample No.	Laboratory Recovery	Validation Recovery
BTR-AOC09-S09	123	81
BTR-AOC08-S01	98	100
BTR-AOC08-S04	82	103
BTR-AOC08-S06	79	100

This is not expected to have an affect on the data since the surrogate recoveries met all of the applicable QC criteria.

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

# I. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>

- I.1 Sample number BTR-AOC09-S09 was used for the matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

# J. System Performance:

- J.1 The laboratory indicated that data acquisition for sample BTR-AOC09-S08 (1316) was interrupted during analysis. No data is available because the laboratory did not reanalyze this sample.
- J.2 No other problems with system performance were observed for the project samples.

# K. Quantitation and Identification:

- K.1 The laboratory raised the PQLs for the BTEX compounds in sample BTR-AOC08-S05 because of interference. It is the opinion of the reviewer that the interference is due to biogenic material in the sample.
- K.2 The laboratory reported detected results for ethylbenzene in sample BTR-AOC09-S01, and for total xylenes in samples BTR-AOC09-S01 and BTR-AOC09-S02. It is the opinion of the reviewer that this is due to carryover from a previous sample. In addition, the detected results for these analytes in these samples were not confirmed by the PID detector. Therefore, the detected results reported in these samples have been changed on the data summary forms by the reviewer to reflect that the target analytes were not detected at concentrations above the PQLs.
- K.3 A discrepancy exists between the detected result for toluene reported by the laboratory (0.3 ppm) and the result regenerated by the reviewer (1.0 ppm) for sample number BTR-AOC08-S03. It appears that the laboratory may not have corrected the analytical result for the moisture content in the sample.
- K.4 Compound identification was confirmed using a second column and an alternate detector.
- K.5 No other problems were observed with compound quantitation and identification.

### L. <u>Conclusion:</u>

- L.1 The laboratory did not provide data for sample BTR-AOC08-S08 (1316) because data acquisition was interrupted during analysis of this sample. The laboratory did not reanalyze the sample.
- L.2 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.
- L.3 Due to the lack of confirmation on the alternate detector and possible carryover from a previous sample, the detected results for certain compounds in some samples have been changed to reflect that they are not present at concentrations above the PQLs.
- L.4 All other data are considered valid and usable for all purposes.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

ANALYSIS:

BTEX compounds by USEPA Method 8020

MATRIX:

Soil

DATE:

April 11, 1994

#### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 1 soil sample from the Barter Island site on August 21, 1993 (referenced chain of custody record No. 393). The sample required analysis for the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for the BTEX compounds by USEPA Method 8020 on September 1, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC09-SD01	1320	Soil

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical result for the soil sample was reported with an adjustment for moisture content.

# II. <u>VALIDITY & COMMENTS:</u>

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration</u>:

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

C. <u>Continuing Calibrations:</u>

C.1 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. <u>Laboratory Blanks</u>:

D.1 No target analytes were detected in the method blanks at a concentration above the PQLs and the results are considered acceptable.

E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQLs and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. <u>Surrogate Recoveries:</u>

H.1 All of the surrogate recoveries met applicable QC criteria and the results are considered acceptable.

1. Matrix Spike/Matrix Spike Duplicate Analyses:

- I.1 Sample number BTR-AOC09-SD01 was used for the soil matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the

results are considered acceptable.

- J. <u>System Performance:</u>
  - J.1 No problems with system performance were observed for the project sample.
- K. Quantitation and Identification:
  - K.1 No problems were observed with compound quantitation and identification.
- L. <u>Conclusion:</u>
  - L.1 There were no target analytes detected above the PQLs in the project sample.
  - L.2 All other data are considered valid and usable for all purposes.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Keith Strout

ANALYSIS:

BTEX compounds by USEPA Method 8020

**MATRIX:** 

Soil

DATE:

April 18, 1994

### I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 2 soil samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 479). Both of the soil samples required analysis for the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 7, 1993 for the BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC9-2S14.5*	1752	Soil
BTR-AOC9-2\$11-1.5	1754	Soil

^{*} The ICF Site No. on the chain of custody record appears to be BTR-AOC9-2S12-1.5 which is not the same number assigned by the laboratory.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results were reported with an adjustment for moisture content.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples are qualified "J" as estimated and are usable for limited purposes.

C. <u>Continuing Calibrations:</u>

C.1 All QC criteria for the BTEX continuing calibrations were met and the results are considered acceptable.

D. <u>Laboratory Blanks:</u>

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. <u>Instrument Blanks:</u>

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

1.1 Sample number BTR-AOC9-2S14.5 was used for the matrix spike/matrix spike

duplicate analyses.

1.2 All of the BTEX matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

# J. System Performance:

J.1 No problems with system performance were observed for the project samples.

# K. Quantitation and Identification:

- K.1 Compound identification was confirmed using a second column and an alternate detector.
- K.2 No problems were observed for compound quantitation and identification.

## L. <u>Conclusion:</u>

- L.1 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.
- L.2 All other data are considered valid and usable for all purposes.

# ICF KAISER ENGINEERS

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#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method

8020

MATRIX:

Water and Soil

DATE:

April 20, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Four of the water samples and two of the soil samples required analysis for halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. One of the water samples required analysis for the BTEX compounds only. The samples were analyzed on August 23 and August 24, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC09-SW01	317	Water
BTR-EB-04	311	Water
BTR-AB-02	315	Water
BTR-AOC10-SW01	307	Water
BTR-LF01-S01	322	Soil
BTR-LF04-S01	326	Soil
BTR-EB-05	332	Water

Results are not available for sample number BTR-LF01-S01 because the laboratory did not analyze this sample.

The following QC sample designations were included in project documentation: sample

numbers BTR-EB-04 and BTR-EB-05 were designated as equipment blanks and sample number BTR-AB-02 was designated as an ambient blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

#### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a five point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

<u>Compound</u>	% RSD
ethylbenzene	23.2 %
m & p-xylene	22.6 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 3-4 are qualified "J" as estimated and are usable for limited purposes.

B.3 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector on system 1-2 because the detector was saturated at low concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

# C. <u>Continuing Calibrations:</u>

- C.1 The continuing calibrations were performed at a concentration of 100 ppb. At this concentration, the system 1-2 ECD response for all of the halogenated compounds, including the surrogate BFB, is saturated. The ECD detector on system 1-2 should only be used to confirm the presence of the halogenated compounds. Therefore, the PQL for the HVOC compounds in all samples and blanks analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.
- C.2 The baseline on the PID detector on system 1-2 was not properly set during the analysis of this project sample set. It is the opinion of the reviewer that the PID detector on system 1-2 should not have been used for quantitation, but used only to confirm the presence of the BTEX compounds.
- C.3 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

#### D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

#### E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

- F.1 Sample numbers BTR-EB-04 and BTR-EB-05 were designated as equipment blanks and sample number BTR-AB-02 was designated as an ambient blank.
- F.2 No target analytes were detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.
- F.3 No target analytes were detected in the ambient blank at a concentration above the PQL and the results are considered acceptable.

# G. Field Replicate Analysis:

G.1 There were no field replicate analyses associated with this project sample set.

#### H. <u>Surrogate Recoveries:</u>

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

# 1. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>

- 1.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses, and sample number BTR-AOC14-SW01 was used for the water matrix spike/matrix spike duplicate analyses. Neither of these samples were included on chain of custody record No. 392.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

### J. System Performance:

- J.1 The ECD and PID detectors on system 1-2 were not operating properly and should only be used to confirm the presence of the HVOCs and BTEX compounds.
- J.2 No other problems with system performance were observed for the project samples.

# K. Quantitation and Identification:

- K.1 The laboratory reported detected results for toluene (8 ppb), ethylbenzene (15 ppb), and total xylene (12 ppb) in sample number BTR-EB-04. The confirmation detector provides no evidence that these compounds are present above the PQLs. Since the PID detector did not show any response for these compounds it is the opinion of the reviewer that these compounds are not present in the samples above the PQLs. Therefore, the detected results for these compounds in sample BTR-EB-04 has been changed on the data summary form to reflect that they were not detected at concentrations above the PQLs.
- K.2 Results are not available for sample number BTR-LF01-S01 because the laboratory did not analyze this sample.
- K.3 No other problems were observed with compound quantitation and identification.

#### L. Conclusion:

- L.1 No target analytes were detected at a concentration above the PQL in any of the project samples.
- L.2 Due to performance problems with the ECD and PID on system 1-2, the PQL for the HVOC compounds in all samples and blanks analyzed on system 1-2 are qualified "J" as estimated and usable for limited purposes.
- L.3 All other data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruva, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method

8020

**MATRIX:** 

Water and Soil

DATE:

April 15, 1994

#### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 13 soil samples and 1 water sample from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). All of the samples required analysis for halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on August 23 and August 24, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-SS14-SW01	336	Water
BTR-SS14-S01	339	Soil
BTR-SS14-S02	341	Soil
BTR-SS14-S03	343	Soil
BTR-SS14-S04	345	Soil
BTR-SS14-S06	347	Soil
BTR-SS14-SD01	349	Soil
BTR-AOC10-SD01	351	Soil
BTR-AOC10-S01	353	Soil
BTR-AOC10-S02	355	Soil
BTR-AOC10-S03	357	Soil
BTR-AOC10-S04	359	Soil

BTR-AOC10-S05	361	Soil
BTR-AOC10-S06	36 <b>3</b>	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-S04 and BTR-AOC10-S06 were designated as field replicates, and sample numbers BTR-SS14-S03 and BTR-SS14-S06 were also designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

# II. VALIDITY & COMMENTS:

# A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

<u>Compound</u>	<u>% RSD</u>
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a five point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the

initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
ethylbenzene	23.2 %
m & p-xylene	22.6 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 3-4 are qualified "J" as estimated and are usable for limited purposes.

B.3 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector because the detector was saturated at low concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

C. <u>Continuing Calibrations:</u>

- C.1 The continuing calibrations were performed at a concentration of 100 ppb. At this concentration, the system 1-2 ECD response for all of the halogenated compounds, including the surrogate BFB, is saturated. Therefore, the ECD detector on system 1-2 should only be used to confirm the presence of the halogenated compounds.
- C.2 The baseline on the PID detector on system 1-2 was not properly set during the analysis of this project sample set. It is the opinion of the reviewer that the PID detector on system 1-2 should not have been used for quantitation, but used only to confirm the presence of the BTEX compounds.
- C.3 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. <u>Laboratory Blanks:</u>

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

E. <u>Instrument Blanks:</u>

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

F. <u>Field Blanks:</u>

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analysis:

G.1 A QC limit for precision of ≤ 50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

- G.2 Samples BTR-AOC10-S04 and BTR-AOC10-S06 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.
- G.3 Samples BTR-SS14-S03 and BTR-SS14-S06 were also utilized for field replicate analysis. The detected results of the field replicate analyses reported by the laboratory for toluene, tetrachloroethene, ethylbenzene, and total xylene exceeded the QC criteria. It is the opinion of the reviewer that the large variability in the detected results is due to hydrocarbon interference in the samples which prevented accurate quantitation of the target analytes.

#### H. <u>Surrogate Recoveries:</u>

H.1 Several of the surrogate recoveries could not be calculated using the FID detector because of hydrocarbon interference. The laboratory used the ECD detector to calculate the surrogate recoveries of samples exhibiting interference on the FID detector. However, the ECD response for the Surrogate (BFB) was saturated for all of the samples. Listed below are the samples that exhibited hydrocarbon interference.

ICF Sample No.	Laboratory Recovery
BTR-SS14-S02	103
BTR-SS14-S03	96
BTR-SS14-S04	97
BTR-SS14-S06	94
BTR-SS14-SD01	103
BTR-AOC10-SD01	100
BTR-AOC10-S01	100

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

# I. Matrix Spike/Matrix Spike Duplicate Analyses:

- 1.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses, and sample number BTR-AOC14-SW01 was used for the water matrix spike/matrix spike duplicate analyses. Neither of these samples were included on chain of custody record No. 390.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

### J. <u>System Performance:</u>

- J.1 The laboratory did not perform any instrument blanks between several of the samples which contained high levels of gasoline. It is the opinion of the reviewer that this resulted in carryover in some of the samples, and created interference and an elevated baseline in some of the samples.
- J.2 No other problems with system performance were observed for the project samples.

# K. Quantitation and Identification:

- K.1 Because of the high level of gasoline in sample BTR-SS14-SD01, the laboratory analyzed this sample at a 1:10 dilution. The detected results and PQLs have been adjusted accordingly to compensate for the dilution.
- K.2 The high level of hydrocarbons in some of the samples and the resulting carryover to subsequent samples resulted in quantitation interference of the target analytes using the FID detector. In addition, the saturation problems with the ECD and baseline problems with the PID rendered these two detectors useless for quantitation. Therefore, it is the opinion of the reviewer that although certain analytes are probably present in the samples, the detected results and the PQLs of the HVOC and BTEX target analytes in samples BTR-SS14-S02, BTR-SS14-S03, BTR-SS14-S04, BTR-SS14-S06, BTR-AOC10-SD01, and BTR-AOC10-S01 are qualified "R" as rejected and are unusable.
- K.3 Hydrocarbon carryover in some of the samples created interference with the detection of certain analytes at low levels. Therefore, the PQL of select BTEX analytes in samples BTR-AOC10-S02, BTR-AOC10-S03, BTR-AOC10-S04, BTR-AOC10-S05, and BTR-AOC10-S06 have been increased to compensate for the level of interference.
- K.4 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for sample BTR-SS14-SD01. Listed below are the target analyte results where discrepancies exist. Results are reported in parts per million (ppm).

Target Analyte	Laboratory Result	Validation Result
ethylbenzene	6.0	11
total xylene	2.6	47

The laboratory indicated that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results which indicates that inconsistent quantitation procedures may have been used.

K.5 No other problems were observed with compound quantitation and identification.

## L. <u>Conclusion:</u>

- L.1 Due to large percent RSDs in the initial calibration, select data in some samples are qualified "J" as estimated and usable for limited purposes.
- L.2 Due to performance problems with the ECD and PID on system 1-2, in addition to hydrocarbon interference, select data in some samples are qualified "R" as rejected and are unusable.
- L.2 All other data are considered valid and usable for all purposes.



#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Keith Strout

**ANALYSIS:** 

HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method

8020

MATRIX: DATE:

Water and Soil April 7, 1994

#### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 389). Three of the samples required analysis for halogenated volatile organic compounds (HVOCs) and all of the samples required analysis for the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on August 24, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
DTD 40014 (M/01	200	14/
BTR-AOC14-SW01	398	Water
BTR-AOC14-S02	400	Soil
BTR-AOC14-S01	402	Soil
BTR-AOC14-SW02	406	Water
BTR-AOC14-SW03	410	Water
BTR-LF12-S02	412	Soil
BTR-LF12-S03	414	Soil
BTR-LF12-S01	416	Soil
BTR-LF12-S01	416	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-SW02 and BTR-AOC14-SW03 were designated as field duplicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD	
benzene	28.3 %	
o-xylene	26.5 %	

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a five point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
ethylbenzene	23.2 %
m & p-xylene	22.6 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 3-4 are qualified "J" as estimated and are usable for limited purposes.

B.3 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector because the detector was saturated at low concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

# C. <u>Continuing Calibrations:</u>

- C.1 The percent recovery for tetrachloroethene (66%) and benzene (67%) in the continuing calibration performed on system 1-2 on August 24, 1993 exceeded the QC criteria of 75-125%. The detected results and the practical quantitation limits (PQLs) for tetrachloroethene and benzene in all of the samples and blanks analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.
- C.2 The continuing calibrations were performed at a concentration of 100 ppb. At this concentration, the ECD response for all of the halogenated compounds is saturated. Therefore, the ECD detector should only be used to confirm the presence of the halogenated compounds.
- C.3 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

### D. <u>Laboratory Blanks:</u>

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

# E. <u>Instrument Blanks:</u>

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

## G. Field Duplicate Analysis:

- G.1 A QC limit for precision of  $\leq$  20%, as measured by Relative Percent Difference (RPD) between water sample values, was specified for field duplicate comparability.
- G.2 Samples BTR-AOC14-SW02 and BTR-AOC14-SW03 were utilized for field duplicate analysis. The results of the field duplicate analyses met all applicable QC criteria and the results are considered acceptable.

# H. <u>Surrogate Recoveries:</u>

H.1 All of the surrogate recoveries met applicable QC criteria and the results are

considered acceptable.

# I. Matrix Spike/Matrix Spike Duplicate Analyses:

- 1.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses, and sample number BTR-AOC14-SW01 was used for the water matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

# J. <u>System Performance:</u>

- J.1 It is the opinion of the reviewer that the ECD detector cannot be used for the quantitation of the halogenated compounds because the detector displayed saturation at low concentrations. The ECD detector can be used for halogenated compound identification confirmation.
- J.2 No other problems with system performance were observed for the project samples.

# K. Quantitation and Identification:

K.1 No problems were observed with compound quantitation and identification.

# L. <u>Conclusion:</u>

- L.1 There were no target analytes detected above the PQLs in any of the project samples.
- L.2 Due to the high percent recovery for tetrachloroethene and benzene in the continuing calibration performed on system 1-2 on August 24, 1993, the PQLs for these compounds in all of the samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.
- L.2 All other data are considered valid and usable for all purposes.



#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Lipe RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method

8020

MATRIX:

Water and Soil May 3, 1994

DATE:

I.

**INTRODUCTION:** 

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 12 soil samples and 1 water sample from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387). Four of the samples required analysis for the BTEX compounds, and four of the samples required analysis for halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on August 24 through August 28, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC15-S01	364	Soil
BTR-AOC15-S02	3 <b>66</b>	Soil
BTR-AOC15-S03	369	Soil
BTR-TB-05	375	Water
BTR-A0C14-SD01	3 <b>78</b>	Soil
BTR-AOC14-S04	380	Soil
BTR-AOC14-SD02	3 <b>82</b>	Soil
BTR-AOC14-S03	386	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-AOC14-S03 and BTR-AOC14-S04 were designated as field replicates, and sample number BTR-TB-05 was designated as a travel blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory analyzed a five point initial calibration on system 3-4 on August 24, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
ethylbenzene	23.2 %
m & p-xylene	22.6 %

Due to the large percent RSDs, the detected results for these compounds in all project samples are qualified "J" as estimated and are usable for limited purposes.

# C. <u>Continuing Calibrations:</u>

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

# D. <u>Laboratory Blanks:</u>

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

# E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

- F.1 Sample number BTR-TB-05 was designated as a travel blank.
- F.2 No target analytes were detected in the travel blank at a concentration above the PQL and the results are considered acceptable.

# G. Field Replicate Analysis:

- G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
- G.2 Samples BTR-AOC14-S03 and BTR-AOC14-S04 were utilized for field replicate analysis. The results of the field replicate analyses, as reported by the laboratory, met all applicable QC criteria and the results are considered acceptable. However, because of poor copy quality on the raw data quantitation reports and chromatograms for these two samples, the reported results could not be verified by the reviewer.

# H. Surrogate Recoveries:

- H.1 Because of poor copy quality on the raw data quantitation reports and chromatograms, the surrogate recovery in samples BTR-AOC15-S01 and BTR-AOC14-SD02 could not be verified by the reviewer.
- H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

#### I. Matrix Spike/Matrix Spike Duplicate Analyses:

- 1.1 Sample number BTR-AOC14-SW01 was used for the water matrix spike/matrix spike duplicate analyses. The laboratory did not submit any soil matrix spike/matrix spike duplicate analyses. Sample number BTR-AOC14-SW01 was not included on chain of custody record No. 387.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

#### System Performance:

- J.1 The laboratory did not perform any instrument blanks between several of the samples which contained high levels of gasoline. It is the opinion of the reviewer that this resulted in carryover and created interference causing an elevated baseline in some of the samples.
- J.2 No other problems with system performance were observed for the project samples.

#### K. Quantitation and Identification:

K.1 Because of poor copy quality of the raw data for sample numbers BTR-AOC14-S01, BTR-AOC14-S03, BTR-AOC15-S01, and BTR-AOC14-SD02, the quantitation of these samples could not be verified by the reviewer. The laboratory

did not respond to several requests to resubmit the raw data. Therefore, the PQLs for these samples are qualified "R" as rejected and are unusable.

- K.2 The laboratory reported a detected result for tetrachloroethylene in sample number BTR-AOC15-S02 at a concentration of 7.3 ppm. The data from the ECD detector does not support a detected result for this compound, however, the data does support a detected result of 7.3 ppm for toluene. The laboratory reported that toluene was not detected at a concentration above the PQL. It appears that the laboratory transcribed the data incorrectly and meant to report a detected result for toluene at a concentration of 7.3 ppm. The data summary form has been corrected by the reviewer.
- K.3 The laboratory did not submit the data from the PID detector for sample number BTR-AOC15-S02. The laboratory did not respond to several requests to resubmit the data. The reviewer was unable to confirm the presence and quantitation of the reported detected results for certain analytes, therefore, the detected results in this sample are qualified "N" and are usable for limited purposes.
- K.4 No other problems were observed with compound quantitation and identification.

#### L. Conclusion:

- L.1 Due to unreadable raw data for sample numbers BTR-AOC14-S02, BTR-AOC14-S03, BTR-AOC15-S01, and BTR-AOC14-SD02, the PQLs for these samples are qualified "R" as rejected and are unusable.
- L.2 Due to missing data from the PID detector for sample number BTR-AOC15-S02, the detected results for select analytes are qualified "N" and are usable for limited purposes.
- L.3 Due to large percent RSDs in the initial calibration, select data in some samples are qualified "J" as estimated and usable for limited purposes.
- L.4 All other data are considered valid and usable for all purposes.



#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER: ANALYSIS:** 

Keith Strout

HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method

8020

MATRIX:

Soil

DATE:

April 21, 1994

#### 1. **INTRODUCTION:**

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 475) to analyze for halogenated volatile organic compounds (HVOCs) and BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 7, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-LF03-2SD09	1678	Soil
BTR-LF03-2SD10	1680	Soil
BTR-AOC1-2S06	1682	Soil
BTR-AOC1-2S07	1684	Soil
BTR-AOC1-2S08	1686	Soil

The laboratory incorrectly listed the ICF site numbers for samples 1682, 1684, and 1686 on the data summary sheets as BTR-AOC1-2S06. The ICF site numbers have been corrected by the reviewer.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

#### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. Initial Calibration:

B.1 The laboratory analyzed a four point initial calibration on system 3-4 on August 29, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
toluene	26 %
ethylbenzene	53 %
m & p-xylene	41 %
o-xylene	28 %

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

#### C. Continuing Calibrations:

- C.1 The laboratory inadvertently did not include the target analytes in the continuing calibrations associated with this project sample set. However, the laboratory did perform spiked blank analyses during the analytical sequence which can be used as continuing calibration checks. The spiked blank analyses were performed at a concentration of 100 ppb.
- C.2 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

# D. <u>Laboratory Blanks:</u>

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limits (PQLs) and the results are considered acceptable.

#### E. Instrument Blanks:

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQLs and the results are considered acceptable.

#### F. Field Blanks:

F.1 The were no field blanks associated with this project sample set.

### G. Field Replicate Analysis:

G.1 There were no field replicate samples associated with this project sample set.

#### H. <u>Surrogate Recoveries:</u>

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

# 1. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>

- 1.1 Sample BTR-SS14-2S06-3 was used as the QC sample for the matrix spike/matrix spike duplicate analyses. This sample was not submitted on chain of custody record No. 475.
- 1.2 Carbon tetrachloride exhibited a low recovery in the matrix spike analysis (57%) and in the matrix spike duplicate analysis (62%), and benzene exhibited a low recovery in the matrix spike analysis. The analytical results are not qualified solely on the results of the matrix spike analyses.
- 1.3 All other matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

### J. System Performance:

- J.1 The continuing calibrations were unusable because the laboratory inadvertently did not spike the target analytes into the continuing calibration solution vials. The reviewer was able to check the system response and linearity using the spiked blank analyses.
- J.2 No other problems with system performance were observed for all other project sample analyses.

# K. Quantitation and Identification:

- K.1 No problems were observed with compound quantitation and identification.
- K.2 Compound identification was confirmed using a second column and an alternate detector.

# L. <u>Conclusion:</u>

- L.1 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.
- L.2 All other data are considered valid and usable for all purposes.



#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Keith Strout

**ANALYSIS:** 

HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method

8020

MATRIX:

Water and Soil

DATE:

April 19, 1994

### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 12 soil and 3 water samples from the Barter Island site on September 3, 1993 (referenced chain of custody record No. 478). All of the samples required analysis for the BTEX compounds, and six of the samples required analysis for halogenated volatile organic compounds (HVOCs) by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The laboratory analyzed all of the samples for HVOCs by USEPA Method 8010 and the BTEX compounds by USEPA Method 8020 on September 7 and September 8, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-EB-07	1716	Water
BTR-EB-08	1720	Water
BTR-SS13-2S05	1724	Soil
BTR-SS13-2S06	1726	Soil
BTR-SS13-2S07	1 <i>7</i> 28	Soil
BTR-SD08-2S11	1730	Soil
BTR-SD08-2S12	1732	Soil
BTR-SD08-2S13-4	1734	Soil
BTR-SD08-2S14-4	1736	Soil
BTR-SD08-2S15-5	1 <i>7</i> 38	Soil
BTR-SD08-2S16-1	1 <i>7</i> 40	Soil
BTR-LF04-2SW03	1748	Water

BTR-LF04-2SD04	1744	Soil
BTR-LF04-2SD03	1742	Soil
BTR-BKGD-2SD03	1746	Soil

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-2S11 and BTR-SD08-2S12 were designated as field replicates, sample numbers BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were designated as field replicates, and sample numbers BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for soils were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

# II. VALIDITY & COMMENTS:

#### A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	% RSD	
benzene	28.3 %	
o-xvlene	26.5 %	

Due to the large percent RSDs, the detected results for these compounds in all project samples are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector because the detector was saturated at low

concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

C. <u>Continuing Calibrations:</u>

- C.1 The continuing calibrations were performed at a concentration of 500 ppb. At this concentration, the ECD response for all of the halogenated compounds is saturated. Therefore, the ECD detector should only be used to confirm the presence of the halogenated compounds.
- C.2 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. <u>Laboratory Blanks:</u>

- D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.
- E. Instrument Blanks:
  - E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.
- F. Field Blanks:
  - F.1 Sample numbers BTR-EB-07 and BTR-EB-08 were designated as equipment blanks.
  - F.2 Toluene was detected in equipment blanks BTR-EB-07 and BTR-EB-08 at concentrations of 2 ppb and 1 ppb, respectively. It is the opinion of the laboratory and the reviewer that the detected results for toluene in these two samples are the result of carryover from a sample analyzed immediately prior to these equipment blanks. Therefore, the detected results for toluene in these two samples have been changed to reflect that toluene was not detected at a concentration above the PQL.
- G. Field Replicate Analysis:
  - G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.
  - G.2 Samples BTR-SD08-2S11 and BTR-SD08-2S12 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.
  - G.3 Samples BTR-SD08-2S13-4 and BTR-SD08-2S14-4 were also utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

- H. Surrogate Recoveries:
  - H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.
- I. Matrix Spike/Matrix Spike Duplicate Analyses:
  - I.1 Sample number BTR-AOC9-2S12-1.5 was used for the matrix spike/matrix spike duplicate analyses.
  - 1.2 A discrepancy exists between the amount of carbon tetrachloride reported by the laboratory and the amount calculated by the reviewer in the spike analyses. The reviewer calculated recoveries of 187% and 149% in the matrix spike and matrix spike duplicate analyses, respectively. It appears that the laboratory used an incorrect linear regression equation for compound quantitation. The high recoveries are not expected to have an affect on the data since this target compound was not detected in any of the samples.
  - 1.3 All of the other matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.
- J. System Performance:
  - J.1 The detection of toluene in the equipment blanks is probably the result of carryover from a sample analyzed immediately prior to the equipment blanks. The laboratory should have analyzed an instrument blank after the high level sample to prevent carryover to subsequent samples.
  - J.2 It is the opinion of the reviewer that the ECD detector cannot be used for the quantitation of the halogenated compounds because the detector displayed saturation at low concentrations. The ECD detector can be used for halogenated compound identification confirmation. Therefore, the detected results and PQLs of the HVOCs in all project samples are qualified "J" as estimated and are usable for limited purposes.
  - J.3 No other problems with system performance were observed for the project samples.
- K. Quantitation and Identification:
  - K.1 Compound identification was confirmed using a second column and an alternate detector.
  - K.2 No problems were observed for compound quantitation and identification.
- L. <u>Conclusion:</u>
  - L.1 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.
  - L.2 All other data are considered valid and usable for all purposes.



#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Keith Strout

**ANALYSIS:** 

HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method

8020

**MATRIX:** 

Water and Soil

DATE:

April 26, 1994

#### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 10 soil and 2 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 476). All of the samples required analysis for the halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 6 and September 7, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-EB-06	1690	Water
BTR-AOC15-2S04	1692	Soil
BTR-AOC15-2S05	1694	Soil
BTR-AOC10-2SD02	1696	Soil
BTR-AOC10-2S06-1.5	1698	Soil
BTR-AOC10-2S07	1700	Soil
BTR-AOC10-S208	1 <i>7</i> 02	Soil
BTR-AOC10-2S09	1704	Soil
BTR-SS14-2S05	1 <i>7</i> 06	Soil
BTR-SS14-2S06-3	1708	Soil
BTR-SS14-2S07	1 <i>7</i> 10	Soil
BTR-AB-03	1 <i>7</i> 12	Water

The following QC sample designations were included in project documentation: sample numbers BTR-AOC10-2S08 and BTR-AOC10-2S09 were designated as field replicates, sample number BTR-EB-06 was designated as an equipment blank, and sample number BTR-AB-03 was designated as an ambient blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

#### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 29, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID

detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
toluene	26 %
ethylbenzene	53 %
m & p-xylene	41 %
o-xylene	28 %

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

# C. <u>Continuing Calibrations</u>:

- C.1 The laboratory inadvertently did not include the target analytes in the continuing calibrations associated with this project sample set. However, the laboratory did perform spiked blank analyses during the analytical sequence which can be used as continuing calibration checks. The spiked blank analyses were performed at a concentration of 100 ppb.
- C.2 All QC criteria for the spike blanks used as continuing calibrations were met and the results are considered acceptable.

# D. <u>Laboratory Blanks:</u>

D.1 No target analytes were detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

### E. <u>Instrument Blanks:</u>

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

- F.1 Sample number BTR-EB-06 was designated as an equipment blank and sample number BTR-AB-03 was designated as an ambient blank.
- F.2 Toluene, ethylbenzene, and xylene were detected in the equipment blank at low concentrations. It is the opinion of the laboratory and the reviewer that the detected results for these analytes in the equipment blank are the result of carryover. Therefore, the PQLS for these analytes have been raised by the reviewer and are qualified "J" as estimated and usable for limited purposes.
- F.3 Toluene, ethylbenzene, xylene, and carbon tetrachloride were detected in the ambient blank at low concentrations. It is the opinion of the laboratory and the reviewer that the detected results for these analytes in the ambient blank are the result of carryover. Therefore, the PQLS for these analytes have been raised by the reviewer and are qualified "I" as estimated and usable for limited purposes.

### G. Field Replicate Analysis:

G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC10-2S08 and BTR-AOC10-2S09 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All of the surrogate QC recovery criteria were met and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

- I.1 Sample number BTR-SS14-2S06-3 was used for the soil matrix spike/matrix spike duplicate analyses, and tap water was used for the water matrix spike/matrix spike duplicate analyses. Neither of these samples were included on chain of custody record No. 476.
- 1.2 For the soil matrix, carbon tetrachloride exhibited a low recovery in the matrix spike analysis (57%) and in the matrix spike duplicate analysis (62%), and benzene exhibited a low recovery in the matrix spike analysis. The analytical results are not qualified solely on the results of the matrix spike analyses.
- 1.3 All other matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

J. System Performance:

- J.1 The continuing calibrations were unusable because the laboratory inadvertently did not spike the target analytes into the continuing calibration solution vials. The reviewer was able to check the system response and linearity using the spiked blank analyses.
- J.2 No other problems with system performance were observed for the project samples.

K. Quantitation and Identification:

- K.1 The laboratory reported a detected result for benzene at a concentration of 1.4 ppm in sample number BTR-SS14-2S07. The confirmation detector provides no evidence that this compound is present at this concentration. Since the PID detector does not provide evidence that benzene is present at this concentration, the detected result for this compound in sample BTR-SS14-2S07 is qualified "N" and is usable for limited purposes.
- K.2 Compound identification was confirmed using a second column and an alternate detector.
- K.3 No other problems were observed with compound quantitation and identification.

L. Conclusion:

- L.1 Due to the high percent RSDs in the initial calibration for certain analytes, select data are considered estimated and usable for limited purposes.
- L.2 All other data are considered valid and usable for all purposes.



# **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Keith Strout

**ANALYSIS:** 

HVOCs by USEPA Method 8010 and BTEX compounds by USEPA Method

8020

MATRIX: DATE:

ı.

Water and Soil April 13, 1994

**INTRODUCTION:** 

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 6 soil and 3 water samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 395). All of the samples required analysis for halogenated volatile organic compounds (HVOCs) and the BTEX compounds by the volatile organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed on September 1 and September 2, 1993 for HVOCs by USEPA Method 8010, and BTEX compounds by USEPA Method 8020.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
DTD L COA CVA/O1	1226	\A/atou
BTR-LF04-SW01	1326	Water
BTR-LF04-SW02	1330	Water
BTR-LF04-S02	1334	Soil
BTR-LF04-SD01	1336	Soil
BTR-LF04-SD02	1338	Soil
BTR-LF01-SD01	1340	Soil
BTR-LF01-SD02	1342	Soil
BTR-LF01-SD03	1344	Soil
BTR-TB-04	1346	Water

The following QC sample designations were included in project documentation: sample

number BTR-TB-04 was designated as a travel blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared using the guidelines in the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Methods 8010 and 8020, and the Project Sampling and Analysis Plan.

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for HVOCs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by the State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

#### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

# B. <u>Initial Calibration:</u>

B.1 The laboratory analyzed a five point initial calibration on system 1-2 on August 19, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

Compound	<u>% RSD</u>
benzene	28.3 %
o-xylene	26.5 %

Due to the large percent RSDs, the detected results for these compounds in all project samples analyzed on system 1-2 are qualified "J" as estimated and are usable for limited purposes.

B.2 The laboratory analyzed a four point initial calibration on system 3-4 on August 29, 1993. The range of the initial calibration was from 1 ppb to 1000 ppb. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using the calibration factors from the initial calibration using the FID detector. The % RSDs for the following compounds exceeded the recommended QC criteria of 20.0%.

<u>Compound</u>	<u>% RSD</u>
toluene	26 %
ethylbenzene	53 %
m & p-xylene	41 %
o-xylene	28 %

Due to large percent RSDs, the detected results for these compounds in all samples analyzed on system 3-4 are qualified "J" as estimated and usable for limited purposes.

B.3 The laboratory was unable to demonstrate linearity throughout the quantitation range using the ECD detector because the detector was saturated at low concentrations. It is the opinion of the reviewer that the ECD detector can be used only to confirm the presence of the halogenated compounds. Quantitation of the halogenated compounds should have been done on the PID or FID detector when possible, and only if compound detection was confirmed on the ECD.

# C. <u>Continuing Calibrations:</u>

- C.1 The continuing calibrations were performed at a concentration of 500 ppb. At this concentration, the ECD response for all of the halogenated compounds is saturated. Therefore, the ECD detector should only be used to confirm the presence of the halogenated compounds.
- C.2 All other QC criteria for the continuing calibrations were met and the results are considered acceptable.

### D. <u>Laboratory Blanks</u>:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

# E. <u>Instrument Blanks:</u>

E.1 No target analytes were detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

F.1 No target analytes were detected in the travel blank at a concentration above the PQL and the results are considered acceptable.

## G. <u>Field Replicate Analysis:</u>

G.1 There were no field replicate samples associated with this project sample set.

#### H. <u>Surrogate Recoveries</u>:

- H.1 A discrepancy exists between the surrogate recovery reported by the laboratory (84%) and the surrogate recovery calculated by the reviewer (104%) for sample number BTR-TB-04. This is not expected to have an affect on the data since the surrogate recovery met all of the applicable QC criteria.
- H.2 All of the surrogate recoveries met applicable QC criteria for all other project samples and the results are considered acceptable.

- I. Matrix Spike/Matrix Spike Duplicate Analyses:
  - 1.1 Sample number BTR-AOC09-S09 (1318) was used for the soil matrix spike/matrix spike duplicate analyses. The laboratory did not submit any matrix spike/matrix spike duplicate analyses for the water fraction.
  - 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.
- J. <u>System Performance:</u>
  - J.1 The laboratory did not adjust the HVOC PQLs for moisture content in soil samples BTR-LF04-S02, BTR-LF04-SD01, and BTR-LF04-SD02. The HVOC PQLs for these samples have been adjusted on the data summary forms by the reviewer.
  - J.2 It is the opinion of the reviewer that the ECD detector cannot be used for the quantitation of the halogenated compounds because the detector displayed saturation at low concentrations. The ECD detector can be used for halogenated compound identification confirmation. Therefore, the detected results and PQLs of the HVOCs in all project samples are qualified "J" as estimated and are usable for limited purposes.
  - J.3 No other problems with system performance were observed for the project samples.
- K. Quantitation and Identification:
  - K.1 The laboratory reported a detected result for total xylene in sample BTR-LF01-SD01. The confirmation data does not support the presence of this analyte in the sample. Therefore, the detected result for total xylene in sample BTR-LF01-SD01 has been changed on the data summary form by the reviewer to reflect that this analyte was not detected at a concentration above the PQL.
  - K.2 No other problems were observed with compound quantitation and identification.
- L. <u>Conclusion:</u>
  - L.1 Due to the previously mentioned problems with the initial calibrations and the continuing calibrations, select data has been qualified "J" as estimated and usable for limited purposes.
  - L.2 All other data are considered valid and usable for all purposes.



#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Pesticides by USEPA Method 8080

MATRIX: DATE: Water and Soil April 14, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 1 water and 13 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). 1 water and 3 soil samples were requested for pesticide analysis by the pesticide organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for pesticides by USEPA Method 8080 on August 24 and 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sampie No.</u>	<u>Matrix</u>
BTR-SS14-SW01	333	Water
BTR-SS14-S01	339	Soil
BTR-AOC10-S01	353	Soil
BTR-AOC10-S04	359	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.01 ppm to 1.0 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using calibration factors determined from the initial calibration using the ECD detector. The %RSDs for the following target analytes exceeded the recommended QC criteria of 20.0%

Compound	%RSD
Endosulfan II	37.9%
Endrin Aldehyde	30.6%
DDT/Endosulfan Sulfate	32.0%
Endrin Ketone	32.6%

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

B.2 Methoxychlor was spiked in at concentrations too low to be detected by the ECD detector until the 0.5 ppm initial calibration standard. All detected results for this analyte are qualified "R" as rejected and unusable, and the practical quantitation limit (PQL) was raised accordingly for both the water and soil samples.

# C. Continuing Calibration:

- C.1 No continuing calibrations were analyzed during the sequence with the exception of the column degradation check solution containing Endrin and DDT. The stability of the instrument, GC column, and detector were monitored using the Endrin and DDT column degradation check solution and the Aroclor 1254 continuing calibration solution. These two solutions were used to check area consistency and surrogate area stability. It is the opinion of the reviewer, that since no pesticide continuing calibration solutions were analyzed, this is the only criteria that can be used to monitor system performance.
- C.2 Due to the absence of pesticide continuing calibrations, the PQLs for the blank and samples are qualified "J" as estimated and usable for limited purposes.

# D. <u>Laboratory Blanks:</u>

D.1 Target analytes were not detected in the method blanks at a concentration above the PQLs and the results are considered acceptable.

# E. <u>Instrument Blanks:</u>

E.1 Target analytes were not detected in the instrument blanks at a concentration above the PQLs and the results are considered acceptable.

# F. Field Blanks:

F.1 There were no field blanks submitted for analyses with this project sample set.

# G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analysis with this project sample set for the pesticide fraction.

### H. <u>Surrogate Recoveries:</u>

H.1 The surrogate recoveries calculated from the Aroclor 1254 continuing calibration met all QC criteria.

# I. <u>Matrix Spike/Matrix Spike Duplicate</u>:

1.1 No matrix spike and matrix spike duplicate analyses were performed for this project sample set.

### J. System Performance:

- J.1 The laboratory set up the GC analytical run time on the primary GC column to elute all pesticide analytes within 9 minutes, causing co-elution of numerous pesticides, and making identification difficult. A slower temperature program and/or slower carrier gas flow rate would increase resolution for many of the pesticide analytes.
- J.2 The Endrin and 4,4'-DDT breakdown ranged between 12-30%, and the results are considered acceptable.
- J.3 No other problems with system performance were observed for all other project sample analyses.

#### K. Quantitation and Identification:

- K.1 Due to sensitivity problems with methoxychlor in the initial calibration, the PQL was raised by the reviewer to 0.5 ppm for this analyte in the soil samples and 50 ppb for the water sample.
- K.2 No other problems with compound quantitation and identification were observed.

#### L. <u>Conclusion:</u>

- L.1 No target analytes were detected in the method blanks or the samples at a concentration above the PQLs.
- L.2 Due to the absence of a pesticide continuing calibration, all PQLs for the method blanks and samples are qualified "J" as estimated and usable for limited

purposes.

L.3 Due to low sensitivity and hydrocarbon interference detected in the initial calibration, the PQL for methoxychlor in the method blank and samples was raised to <0.5 ppm for the soil samples and <50 ppb for the water sample.



#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Pesticides by USEPA Method 8080

MATRIX: DATE: Water and Soil April 21, 1994

#### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Two water samples were requested for pesticide analysis by the pesticide organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for pesticides by USEPA Method 8080 on August 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-AOC10-SW01	304	Water
BTR-EB-05	328	Water

It should be noted that the laboratory did not report the results for both of the water samples on the summary result page. The laboratory stated they were not reported due to extraction and/or instrument problems. By reviewing the data it appears that the samples listed by the laboratory as being not reported were reanalyzed at a later time (evident by the raw data submitted). The laboratory reported results for soil samples BTR-AOC07-S01, BTR-LF01-S01 and BTR-LF04-S01 which were not requested for on the chain-of-custody record. These three soil samples were not validated by the reviewer.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in

## II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration</u>:

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.01 ppm to 1.0 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using calibration factors determined from the initial calibration using the ECD detector. The %RSDs for the following target analytes exceeded the recommended QC criteria of 20.0%

Compound	%RSD
Endosulfan II	37.9%
Endrin Aldehyde	30.6%
DDT/Endosulfan Sulfate	32.0%
Endrin Ketone	32.6%

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

B.2 Methoxychlor was spiked in at concentrations too low to be detected by the ECD detector until the 0.5 ppm initial calibration standard. All detected results for this analyte are qualified "R" as rejected and unusable, and the practical quantitation limit (POL) was raised accordingly for the samples.

### C. Continuing Calibration:

- C.1 No continuing calibrations were analyzed during the sequence with the exception of the column degradation check solution containing Endrin and DDT. The stability of the instrument, GC column, and detector were monitored using the Endrin and DDT column degradation check solution and the Aroclor 1254 continuing calibration solution. These two solutions were used to check area consistency and surrogate area stability. It is the opinion of the reviewer, that since no pesticide continuing calibration solutions were analyzed, this is the only criteria that can be used to monitor system performance.
- C.2 Due to the absence of pesticide continuing calibrations, the PQLs for the blank and samples are qualified "J" as estimated and usable for limited purposes.
- C.3 The laboratory analyzed many of the pesticide analytes separately prior to

analyzing the two samples listed above. These chromatograms are included in the data package for reference information only.

# D. <u>Laboratory Blanks</u>:

D.1 Target analytes were not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

## E. <u>Instrument Blanks</u>:

E.1 Target analytes were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

- F.1 Sample BTR-EB-05 was designated as the field equipment blank for this project sample set.
- F.2 Target analytes were not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

# G. Field Replicate Analyses:

G.1 There were no field replicate samples for the pesticide fraction associated with this project sample set.

# H. <u>Surrogate Recoveries:</u>

H.1 All surrogate recoveries calculated from the Aroclor 1254 continuing calibration standard met all QC criteria and the results are considered acceptable.

### I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

1.1 No matrix spike and matrix spike duplicate analyses for the pesticide fraction were performed for this project sample set.

#### J. System Performance:

- J.1 The laboratory set up the GC analytical run time on the primary GC column to elute all pesticide analytes within 9 minutes, causing co-elution of numerous pesticides, and making identification difficult. A slower temperature program and/or slower carrier gas flow rate would increase resolution for many of the pesticide analytes.
- J.2 The Endrin and 4,4'-DDT breakdown ranged between 22-24%, and the results are considered acceptable.
- J.3 No other problems with system performance were observed for all other project sample analyses.

# K. Quantitation and Identification:

K.1 Due to sensitivity problems with methoxychlor in the initial calibration, the PQL was raised by the reviewer to 25 ppb in the method blank and samples. The PQL for all other target analytes are 2.5 ppb.

K.2 The laboratory did not report the two water sample results on the summary results page. The reviewer calculated the results and are listed below.

ICF Site No.	Laboratory Results	Validation Results
BTR-AOC10-SW01		<2.5 ppb *
BTR-FB-05		<2.5 ppb *

- * Methoxychlor PQL is 25 ppb for both samples due to sensitivity problems associated with the initial calibration.
- K.3 The laboratory reported the results for soil samples BTR-AOC07-S01, BTR-LF01-S01 and BTR-LF04-S01 on the summary results page. These three soil samples were not validated by the reviewer.
- K.4 No other problems with compound quantitation and identification were observed.

#### L. Conclusion:

- L.1 No target analytes were detected in the method blank or the samples at a concentration above the PQL.
- L.2 Due to the absence of a pesticide continuing calibration, all PQLs for the method blank and samples are qualified "J" as estimated and usable for limited purposes.
- L.3 Due to low sensitivity detected in the initial calibration, the PQL for methoxychlor in the method blank and the samples was raised to 25 ppb.
- L.4 The laboratory did not report the results for the water samples on the summary results page. The reviewer calculated the results and are reported in Section K.2.



#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Pesticides by USEPA Method 8080

MATRIX:

Soil

DATE:

April 19, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 12 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387). One soil sample was requested for pesticide analysis by the pesticide organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for pesticides by USEPA Method 8080 on August 24, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.Lab Sample No.MatrixBTR-AOC15-S01364Soil

The analytical results for the soil sample were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.01 ppm to 1.0 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using calibration factors determined from the initial calibration using the ECD detector. The %RSDs for the following target analytes exceeded the recommended QC criteria of 20.0%

Compound	%RSD
Endosulfan II	37.9%
Endrin Aldehyde	30.6%
DDT/Enclosulfan Sulfate	32.0%
Endrin Ketone	32.6%

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

B.2 Methoxychlor was spiked in at concentrations too low to be detected by the ECD detector until the 0.5 ppm initial calibration standard. All detected results for this analyte are qualified "R" as rejected and unusable, and the practical quantitation limit (PQL) was raised accordingly for the sample.

# C. <u>Continuing Calibration:</u>

- C.1 No continuing calibrations were analyzed during the sequence with the exception of the column degradation check solution containing Endrin and DDT. The stability of the instrument, GC column, and detector were monitored using the Endrin and DDT column degradation check solution and the Aroclor 1254 continuing calibration solution. These two solutions were used to check area consistency and surrogate area stability. It is the opinion of the reviewer, that since no pesticide continuing calibration solutions were analyzed, this is the only criteria that can be used to monitor system performance.
- C.2 Due to the absence of pesticide continuing calibrations, the PQLs for the blank and sample are qualified "J" as estimated and usable for limited purposes.
- C.3 The laboratory analyzed many of the pesticide analytes separately prior to analyzing sample BTR-AOC15-S01. These chromatograms are included in the data package for reference information only.

### D. <u>Laboratory Blanks:</u>

D.1 Target analytes were not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

### E. <u>Instrument Blanks:</u>

E.1 Target analytes were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

### F. Field Blanks:

F.1 There were no field blanks submitted for analyses with this project sample set.

# G. Field Replicate Analyses:

G.1 There were no field replicate samples for the pesticide fraction submitted for analysis with this project sample set.

### H. Surrogate Recoveries:

H.1 The surrogate recovery calculated from the Aroclor 1254 continuing calibration standard met all QC criteria and the results are considered acceptable.

## I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

1.1 No matrix spike and matrix spike duplicate analyses for the pesticide fraction were performed for this project sample set.

### J. System Performance:

- J.1 The laboratory set up the GC analytical run time on the primary GC column to elute all pesticide analytes within 9 minutes, causing co-elution of numerous pesticides, and making identification difficult. A slower temperature program and/or slower carrier gas flow rate would increase resolution for many of the pesticide analytes.
- J.2 The Endrin and 4,4'-DDT breakdown ranged between 22-24%, and the results are considered acceptable.
- J.3 No other problems with system performance were observed for all other project sample analyses.

## K. Quantitation and Identification:

- K.1 Due to sensitivity problems with methoxychlor in the initial calibration, the PQL was raised by the reviewer to 0.5 ppm in the sample.
- K.2 No other problems with compound quantitation and identification were observed.

#### L. Conclusion:

L.1 No target analytes were detected in the method blank or the sample at a concentration above the PQL.

- L.2 Due to the absence of a pesticide continuing calibration, all PQLs for the method blank and sample are qualified "J" as estimated and usable for limited purposes.
- L.3 Due to low sensitivity and hydrocarbon interference detected in the initial calibration, the PQL for methoxychlor in the method blank and the sample was raised to <0.5 ppm.



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#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Pesticides by USEPA Method 8080.

MATRIX:

Soil

DATE:

April 7, 1994

#### 1. **INTRODUCTION:**

Friedman & Bruya, Inc. (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 21 and 22, 1993 (referenced chain of custody record No. 389). One sample was requested for pesticide analysis by the pesticide organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for pesticides by USEPA Method 8080 on August 24, 1993.

The ICF site identification number and corresponding FBI laboratory sample identification number is listed below.

ICF Site No.

Lab Sample No.

Matrix

BTR-LF12-S01

Soil

The analytical results were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in **USEPA** Method 8080, and the Project Sampling and Analysis Plan.

#### **VALIDITY & COMMENTS:** II.

#### **Technical Holding Times:** A.

A.1 The technical holding time QC criteria were met for all project sample analyses.

### B. <u>Initial Calibration:</u>

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.01 ppm to 1.0 ppm. All samples were quantitated using a linear regression curve caluclated from the initial calibration. Percent relative standard deviations (%RSDs) were calculated for all compounds using calibration factors determined from the initial calibration using the EC detector. The %RSDs for the following target analytes exceeded the recommended QC criteria of 20.0%

Compound	%RSD
Endosulfan II	38%
Endrin Aldehyde	31%
DDT/Endo. Sulfate -	32%

Due to the large percent RSDs, the detected results for these compounds are qualified "J" as estimated and are usable for limited purposes.

B.2 Methoxychlor was spiked in at concentrations too low to be detected by the ECD except for the 0.5 ppm initial calibration. All detected results for this analyte are qualified "R" as rejected and unusable, and the practical quantitation limit (PQL) is raised to <0.5 ppm.

### C. Continuing Calibration:

- C.1 No continuing calibrations were analyzed during the sequence with the exception of the column degradation solution containing Endrin and DDT. The stability of the instrument, GC column, and detector were monitored using the Endrin and DDT column degradation solution and the Aroclor 1254 continuing calibration solution. These two solutions were used to check area consistency and surrogate area stability. It is the opinion of the reviewer, that since no pesticide continuing calibration solutions were analyzed, this is the only criteria that can be used to monitor system performance.
- C.2 Due to the absence of pesticide continuing calibrations, the PQLs for the blank and sample are qualified "J" as estimated and usable for limited purposes.

#### D. <u>Laboratory Blanks:</u>

D.1 Target analytes were not detected in the method blank at a concentration above the PQLs and the results are considered acceptable.

#### E. <u>Instrument Blanks:</u>

E.1 Target analytes were not detected in the instrument blank at a concentration above the PQLs and the results are considered acceptable.

#### F. Field Blanks:

F.1 There were no field blanks submitted for analyses with this project sample set.

### G. Field Duplicate Analyses:

G.1 No field duplicate analyses were requested for the pesticide fraction.

#### H. Surrogate Recoveries:

H.1 The surrogate recovery calculated from the Aroclor 1254 continuing calibration met all QC criteria.

### I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

I.1 No matrix spike and matrix spike duplicate analyses were performed for this project sample set.

### J. <u>System Performance:</u>

- J.1 The laboratory set up the GC analytical run time on the primary GC column to elute all pesticide analytes within 9 minutes, causing co-elution of numerous pesticides, and making identification difficult. A slower temperature program and/or slower carrier gas flow rate would increase resolution for many of the pesticide analytes.
- J.2 The Endrin and 4,4'-DDT breakdown ranged between 5-20%, and the results are considered acceptable.
- J.3 No other problems with system performance were observed for all other project sample analyses.

### K. Quantitation and Identification:

- K.1 Due to sensitivity problems with methoxychlor in the initial calibration, the PQL is raised to 0.5 ppm for this analyte.
- K.2 No other problems with compound quantitation and identification were observed.

#### L. Conclusion:

- L.1 No target analytes were detected in the method blank and the sample.
- L.2 Due to the absence of a pesticide continuing calibration, all PQLs for the method blank and sample are qualified "J" as estimated and usable for limited purposes.
- L.3 Due to low sensitivity and hydrocarbon interference detected in the initial calibration, the PQL for methoxychlor in the method blank and samples is raised to <0.5 ppm.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

**ANALYSIS:** 

Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.

MATRIX:

Water

DATE:

April 26, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 10 soil and 2 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 476). One water sample was requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The sample was analyzed for PCBs by USEPA Method 8080 (GC/ECD) on September 9, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No. BTR-EB-06

Lab Sample No. 1688

<u>Matrix</u> Water

The following set of QC sample designations were included in project documentation: sample number BTR-EB-06 was designated as an equipment blank.

The quantitation limits reported by the laboratory (<2 ppm) for the water sample was lower than those specified in the Project Sampling and Analysis Plan (<5 ppm). Since the low point of the initial calibration is 0.1 ppm, the PQL should be 5 ppb. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. Initial Calibration:

B.1 The laboratory performed a five point initial calibration on GC Instrument ICF5 on August 21, 1993. All samples were quantitated using a linear regression curve calculated from the initial calibration. The range of the initial calibration was from 0.1 ppm to 10 ppm. A percent relative standard deviation (%RSD) of 37.2% was calculated using calibration factors determined from the initial calibration. The %RSD of 37.2 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

### C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

## D. <u>Laboratory Blanks:</u>

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

### E. <u>Instrument Blanks</u>:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

### F. Field Blanks:

- F.1 Sample number BTR-EB-06 was designated as an equipment blank.
- F.2 Diesel was not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

#### G. Field Replicate Analyses:

G.1 No field replicate samples were associated with this project sample set.

### H. <u>Surrogate Recoveries:</u>

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

#### I. Matrix Spike/Matrix Spike Duplicate:

1.1 No matrix spike and matrix spike duplicate analyses were performed for this sample set.

#### J. System Performance:

J.1 No problems with system performance were observed for the project sample analyses.

- K. Quant itationand Identification:
  - K.1 No problems with compound quantitation and identification were observed for this project sample set.
- L. <u>Conclusion:</u>
  - L.1 PCBs were not detected in in the method blank and sample BTR-EB-06.
  - L.2 The PQLs for the method blank and sample were raised to 5 ppb by the reviewer on the summary results page.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

REVIEWER:

Timothy Vonnahme

ANALYSIS:

Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.

MATRIX: DATE:

Water and Soil April 8, 1994

### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 5 soil and 3 water samples from the Barter Island site on August 21 and 22, 1993 (referenced chain of custody record No. 389). Three samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF12-S02	412	Soil
BTR-LF12-S03	414	Soil
BTR-LF12-S01	416	Soil

The analytical results were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for PCBs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

# II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1994. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. <u>Instrument Blanks:</u>

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 No field replicate analyses were requested for the PCB fraction.

H. <u>Surrogate Recoveries:</u>

H.1 All surrogate recoveries were calculated referenced to the closest continuing calibration standard.

H.2 All surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

I.1 Sample number BTR-LF12-S03 was used for the soil matrix spike/matrix spike duplicate analyses.

1.2 The percent recovery of the matrix spike duplicate sample was 252%, exceeding the percent recovery and %RPD QC criteria. It is the opinion of the

reviewer that since the surrogate recovery was also high for this QC sample, the final volume of the sample extract had somehow concentrated to less than 5 mL. Since this is a QC sample, no action is taken.

### J. <u>System Performance:</u>

J.1 No problems with system performance were observed for the project sample analyses.

# K. Quantitation and Identification:

K.1 No problems with compound quantitation and identification were observed for this project sample set.

### L. <u>Conclusion:</u>

- L.1 No PCBs were detected in the method blank or the samples.
- L.2 The matrix spike duplicate sample exceeded the percent recovery QC criteria. Since this is a QC sample, no action is necessary.

# ICF KAISER ENGINEERS

ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

**ANALYSIS:** 

Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.

MATRIX:

Water and Soil

DATE:

April 14, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 1 water and 13 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 390). Eleven soil samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on August 24 and 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-SS14-S01	339	Soil
BTR-SS14-S02 (1:10 DIL)	341	Soil
BTR-SS14-S03	343	Soil
BTR-SS14-S04	345	Soil
BTR-SS14-S06	347	Soil
BTR-AOC10-S01	353	Soil
BTR-AOC10-S02	355	Soil
BTR-AOC10-S03	35 <i>7</i>	Soil
BTR-AOC10-S04	359	Soil
BTR-AOC10-S05	361	Soil
BTR-AOC10-S06	363	Soil

The analytical results were reported with an adjustment for moisture content.

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-SS14-S03 and BTR-SS14-S06 along with sample numbers BTR-AOC10-S04 and BTR-AOC10-S06 were designated as field replicates.

It should be noted that all quantitation limits reported by the laboratory for PCBs for project soil samples were higher than those specified in the Project Sampling and Analysis Plan. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

### A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration:</u>

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

#### C. <u>Continuing Calibration</u>:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

#### D. <u>Laboratory Blanks:</u>

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limits (PQLs) and the results are considered acceptable.

#### E. <u>Instrument Blanks</u>:

E.1 PCBs were not detected in the instrument blanks at a concentration above the PQLs and the results are considered acceptable.

#### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

#### G. Field Replicate Analyses:

G.1 A QC limit for precision of ≤50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate

### comparability.

- G.2 Samples BTR-SS14-S03 and BTR-SS14-S06 were utilized for field replicate analyses. The results met all applicable QC criteria, and are considered acceptable.
- G.3 Samples BTR-AOC10-S04 and BTR-AOC10-S06 were also utilized for field replicate analyses. The results met all applicable QC criteria, and are considered acceptable.

### H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

### I. Matrix Spike/Matrix Spike Duplicate:

- I.1 Sample number BTR-LF01-S01 was used for the soil matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

# J. System Performance:

J.1 No problems with system performance were observed for the project sample analyses.

### K. Quantitation and Identification:

- K.1 The PQLs for sample BTR-SS14-S02 should all have been raised to <5 ppb due to the 10 fold dilution necessary for the diesel fraction. The PQLs have been corrected on the summary result page by the reviewer.
- K.2 The PQLs for sample BTR-AOC10-S05 were not corrected for moisture content by the laboratory. The PQLs have been corrected on the summary result page by the reviewer.
- K.3 No other problems with compound quantitation and identification were observed for this project sample set.

#### L. Conclusion:

L.1 No PCBs were detected in the method blank or the samples at a concentration above the PQL and all results are considered valid and usable for all purposes.



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#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.

MATRIX: DATE:

Water and Soil April 20, 1994

### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (Seattle, WA) received 4 soil and 5 water samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 392). Seven of the samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on August 25, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-EB-04	308	Water
BTR-AOC10-SW01	304	Water
BTR-AOC07-S01	320	Soil
BTR-AOC07-S02	321	Soil
BTR-LF01-S01	322	Soil
BTR-LF04-S01	326	Soil
BTR-EB-05	328	Water

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following set of QC sample designations were included in project documentation: sample numbers BTR-EB-04 and BTR-EB-05 were designated as field equipment blanks.

The quantitation limits reported by the laboratory (<0.5 ppm) for the soil samples were

higher than those specified in the Project Sampling and Analysis Plan (<0.1 ppm). It is the opinion of the reviewer that the quality of the data was not affected.

It should be noted that the laboratory did not report the results for the three water samples on the summary result page. The laboratory stated they were not reported due to extraction and/or instrument problems. By reviewing the data it appears that the samples listed by the laboratory as being not reported were reanalyzed at a later time (evident by the raw data submitted by the laboratory). However, the reviewer could not locate the raw data for sample BTR-LF01-S01 reported by the laboratory, even though this sample was reported with results for the matrix spike/matrix spike duplicate QC sample.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

#### B. <u>Initial Calibration:</u>

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1994. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

#### C. Continuing Calibration:

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

#### D. <u>Laboratory Blanks:</u>

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

### E. <u>Instrument Blanks:</u>

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

- F.1 Samples BTR-EB-04 and BTR-EB-05 were designated as field equipment blanks for this project sample set.
- F.2 No PCBs were detected in the equipment blanks at a concentration above

the PQL and the results are considered acceptable.

### G. Field Replicate Analyses:

G.1 No field replicate samples were associated with this project sample set.

#### H. <u>Surrogate Recoveries:</u>

- H.1 The surrogate recovery for sample BTR-AOC07-S01 could not be calculated due to the high level of Aroclor 1254 detected in the sample interfering with the surrogate area. It is unknown how the laboratory reported a surrogate recovery of 120%.
- H.2 All other surrogate recoveries, including the samples not reported by the laboratory, met applicable QC criteria and the results are considered acceptable.

### 1. Matrix Spike/Matrix Spike Duplicate:

- I.1 Sample number BTR-LF01-S01 was used for the matrix spike/matrix spike duplicate analyses. No water matrix spike/matrix spike duplicate analyses were submitted.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

# J. <u>System Performance:</u>

- J.1 The laboratory reported extraction and/or instrument problems with samples BTR-EB-04, BTR-AOC10-SW01 and BTR-EB-05 resulting in non submittal of results by the laboratory.
- J.2 No other problems with system performance were observed for the project sample analyses.

### K. Quantitation and Identification:

K.1 The laboratory did not report results for samples BTR-EB-04, BTR-AOC10-SW01 and BTR-EB-05 stating that due to extraction and/or instrument problems no quantitative results were possible. However, by going through the data the reviewer found that the laboratory did reanalyze the three water samples noted above (evident by the submitted raw data). Listed below are the samples that were not reported by the laboratory, but were reported by the reviewer.

<u>ICF Site No.</u>	<u> Laboratory Results</u>	Validation Results
BTR-EB-04		<5 ppb
BTR-AOC10-SW01		<5 ppb
BTR-EB-05		<5 ppb

- K.2 The reviewer was unable to locate the raw data for sample BTR-LF01-S01, even though this sample was reported with results for the matrix spike/matrix spike duplicate QC sample. Therefore, the PQL for this sample is qualified "R" as rejected and unusable.
- K.3 Discrepancies exist between the results reported by the laboratory and the

results regenerated by the reviewer for sample BTR-AOC07-S01. The laboratory reported a PQL of <0.5 ppm for Aroclor 1254, whereas the reviewer calculated Aroclor 1254 at a concentration of 52 ppm, exceeding the linear range of the initial calibration. Therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

- K.4 The laboratory adjusted the PQL for Aroclor 1254 only in sample BTR-LF04-501 to allow for the moisture content, when they should have adjusted the PQLs for all the PCBs. It has been corrected by the reviewer on the summary result page.
- K.5 No other problems with compound quantitation and identification were observed for this project sample set.

# L. <u>Conclusion:</u>

- L.1 Results for sample BTR-LF01-S01 are qualified "R" as rejected and unusable since the reviewer was unable to locate the raw data for verification of sample results.
- L.2 Due to a discrepancy between the result reported by the laboratory and the result regenerated by the reviewer, the detected result for sample BTR-AOC07-S01 is qualified "J" as estimated and usable for limited purposes.
- L.3 Results for the three water samples were not reported by the laboratory, but were calculated by the reviewer and are reported in Section K.1.
- L.4 PCBs were not detected in the other project samples at concentrations above the PQL.



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#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

**ANALYSIS:** 

Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.

**MATRIX:** 

Soil

DATE:

April 19, 1994

### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (Seattle, WA) received 12 soil samples from the Barter Island site on August 22, 1993 (referenced chain of custody record No. 387). Five soil samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on August 24, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>	<u>Matrix</u>
BTR-AOC07-S03	370	Soil
BTR-AOC07-S04	371	Soil
BTR-AOC07-S05	372	Soil
BTR-AOC07-S06	373	Soil
BTR-AOC07-S07	374	Soil

The analytical result for the soil samples were reported with an adjustment for moisture content.

The following two sets of QC sample designations were included in project documentation: sample numbers BTR-AOC07-S06 and BTR-AOC07-S07 along with sample numbers BTR-AOC14-S03 and BTR-AOC14-S04 were designated as field replicates.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This

report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1993. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. <u>Continuing Calibration:</u>

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 A QC limit for precision of \$50 percent as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC07-S06 and BTR-AOC07-S07 were utilized for field replicate analyses. The results met all applicable QC criteria, and are considered acceptable.

H. Surrogate Recoveries:

H.1 The laboratory reported surrogate percent recovery values of 130% for sample BTR-AOC07-S06 and 145% for sample BTR-AOC07-S07. When calculated by the reviewer using peak height in place of area due to interference, the surrogate recoveries were 157% for sample BTR-AOC07-S06 and 156% for sample BTR-AOC07-S07. If the laboratory reintegrated the surrogate areas to achieve the above

surrogate recoveries, they were not submitted with the data for verification by the reviewer.

H.2 All other surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

# I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

- I.1 Sample number BTR-AOC14-SD02 was used for the matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

### J. System Performance:

- J.1 Aroclor 1254 was detected in samples BTR-AOC07-S06 and BTR-AOC07-S07 at concentrations above the initial calibration range. The laboratory did not dilute and reanalyze the samples.
- J.2 No other problems with system performance were observed for the project sample analyses.

#### K. Quantitation and Identification:

- K.1 All samples were quantitated using the closest continuing calibration standard (File 098R0201).
- K.2 Discrepancies exist between the detected results reported by the laboratory and the results regenerated by the reviewer for some of the project samples. Listed below are the sample results where discrepancies exist.

ICF Site No.	<u>Laboratory Results</u>	Validation Results
BTR-AOC07-S06	21 ppm	20 ppm
BTR-AOC07-S07	20 ppm	30 ppm

It is the opinion of the reviewer that the discrepancies are probably due to inconsistent quantitation procedures. The laboratory was unable to reproduce some of the reported detected results for diesel which indicates that inconsistent quantitation procedures may have been used.

- K.3 Samples BTR-AOC07-S06 and BTR-AOC07-S07 contained Aroclor 1254 at concentrations exceeding the linear range of the initial calibration. Since the laboratory failed to dilute and reanalyze these two samples, the detected results are qualified "J" as estimated and usable for limited purposes.
- K.4 The laboratory confirmed the Aroclor 1254 in sample BTR-AOC07-S07 with a second analysis using the GC confirmation column.
- K.5 No other problems with compound quantitation and identification were observed for this project sample set.

## L. <u>Conclusion:</u>

- L.1 Due to previously mentioned problems stated above, the detected results for samples BTR-AOC07-S06 and BTR-AOC07-S07 are qualified "J" as estimated and usable for limited purposes.
- L.2 PCBs were not detected in the other project soil samples at concentrations above the PQL.



ICF KAISER ENGINEERS, INC. 2700 CHANDLER AVENUE, BUILDING C LAS VEGAS, NV 89120 702/795-0515

#### **DATA VALIDATION REPORT**

**PROGRAM:** BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

**LABORATORY:** Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** Timothy Vonnahme

**ANALYSIS:** Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.

MATRIX: Sc

**DATE:** April 26, 1994

### I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (Seattle, WA) received 6 soil and 6 water samples from the Barter Island site on September 2, 1993 (referenced chain of custody record No. 474). Six soil samples were requested for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on September 6, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>	<u>Matrix</u>
BTR-AOC7-2S08-1	1671	Soil
BTR-AOC7-2S09	1672	Soil
BTR-AOC7-2S10	1673	Soil
BTR-AOC7-2S11	1674	Soil
BTR-AOC7-2S12	1675	Soil
BTR-AOC7-2S13	1676	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

The following set of QC sample designations were included in project documentation: sample numbers BTR-AOC7-2S10 and BTR-AOC7-2S11 were designated as field replicate samples.

The quantitation limits reported by the laboratory (<0.5 ppm) for the soil samples were higher than those specified in the Project Sampling and Analysis Plan (<0.1 ppm). It is the

opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

B.1 The laboratory performed a five point initial calibration on GC Instrument ICF5 on August 21, 1993. All samples were quantitated using a linear regression curve calculated from the initial calibration. The range of the initial calibration was from 0.1 ppm to 10 ppm. A percent relative standard deviation (%RSD) of 37.2% was calculated using calibration factors determined from the initial calibration. The %RSD of 37.2 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. <u>Continuing Calibration:</u>

C.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 PCBs were not detected in the method blank at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

G. Field Replicate Analyses:

G.1 A QC limit for precision of  $\leq$  50%, as measured by Relative Percent Difference (RPD) between soil sample values, was specified for field replicate comparability.

G.2 Samples BTR-AOC7-2S10 and BTR-AOC7-2S11 were utilized for field replicate analysis. The results of the field replicate analyses met all applicable QC criteria and the results are considered acceptable.

H. <u>Surrogate Recoveries:</u>

H.1 All surrogate recoveries met applicable QC criteria and the results are

considered acceptable.

### I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

- I.1 Sample number BTR-SS14-2S06-3 was used for the matrix spike/matrix spike duplicate analyses.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

#### J. <u>System Performance:</u>

J.1 No problems with system performance were observed for the project sample analyses.

#### K. Quantitation and Identification:

- K.1 A discrepancy exists between the result reported by the laboratory and the result regenerated by the reviewer for sample BTR-AOC7-2S09. The laboratory reported a PQL of <0.5 ppm for Aroclor 1254, whereas the reviewer calculated Aroclor 1254 at a concentration of 8.7 ppm. The result for this sample has been corrected on the summary results page by the reviewer. The detected results are qualified "J" as estimated and usable for limited purposes.
- K.2 The other samples appeared to possibly contain low levels of Aroclor 1254. However, since all calculated results were below the PQL of 0.5 ppm, they were not reported by the laboratory on the summary result page.
- K.3 No other problems with compound quantitation and identification were observed for this project sample set.

#### L. Conclusion:

- L.1 Due to a discrepancy between the result reported by the laboratory and the result regenerated by the reviewer, the detected result for Aroclor 1254 in sample BTR-AOC7-S09 is qualified "J" as estimated and usable for limited purposes.
- L.2 PCBs were possibly detected in the other project soil samples, but were detected at concentrations below the PQL. Since these results were below the PQL of 0.5 ppm, they were not reported by the laboratory.

# ICF KAISER ENGINEERS

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### DATA VALIDATION REPORT

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-512-02)

LABORATORY:

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

**ANALYSIS:** 

Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.

**MATRIX:** 

Water

DATE:

April 15, 1994

#### I. INTRODUCTION:

Friedman & Bruya, Inc. (Seattle, WA) received 4 water samples from the Barter Island site on August 21, 1993 (referenced chain of custody record No. 396). Requested analyses were for polychlorinated biphenyls (PCBs) analysis by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on September 1, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-LF01-SW04	1348	Water
BTR-LF01-SW03	1362	Water
BTR-LF01-SW02	1368	Water
BTR-LF01-SW01	1372	Water

The laboratory did not submit the raw data for sample BTR-LF01-SW01, even though results for this sample were found on the summary result page.

It should be noted that the quantitation limits reported by the laboratory (<2 ppb) for the samples were lower than those specified in the Project Sampling and Analysis Plan. Since the lowest point of the initial calibration was 10 ppm, the practical quantitation limits (PQLs) should be <5 ppb. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets

submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project sample analyses.

### B. <u>Initial Calibration:</u>

B.1 The laboratory performed a five point initial calibration on GC Instrument ICF5 on August 21, 1993. All samples were quantitated using a linear regression curve calculated from the initial calibration. The range of the initial calibration was from 0.1 ppm to 10 ppm. A percent relative standard deviation (%RSD) of 37.2% was calculated using calibration factors determined from the initial calibration. The %RSD of 37.2 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. <u>Continuing Calibration:</u>

- C.1 Continuing calibration standard (File 098R4201) percent recovery of 129% was outside the QC criteria of 75-125%. Therefore, all detected results and practical quantitation limits (PQLs) for samples associated with this calibration standard are qualified "J" as estimated and usable for limited purposes.
- C.2 All QC criteria for the other continuing calibrations were met and the results are considered acceptable.

#### D. <u>Laboratory Blanks:</u>

D.1 PCBs were not detected in the method blank at a concentration above the PQL and the results are considered acceptable.

#### E. Instrument Blanks:

E.1 PCBs were not detected in the instrument blanks at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

#### G. <u>Field Replicate Analyses:</u>

G.1 There were no field replicate samples submitted for analysis with this project sample set.

### H. <u>Surrogate Recoveries:</u>

H.1 All surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

- I. Matrix Spike/Matrix Spike Duplicate:
  - I.1 Sample number TW (tap water) was used for the water matrix spike/matrix spike duplicate analyses.
  - 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.
- J. System Performance:
  - J.1 No problems with system performance were observed for the project sample analyses.
- K. Quantitation and Identification:
  - K.1 The PQL of the water samples was raised to 5 ppb by the reviewer since the low point of the initial calibration was 0.1 ppm.
  - K.2 The laboratory did not submit the raw data for sample BTR-LF01-SW01, even though results for this sample were reported on the summary result page. Since no raw data was submitted for sample result verification, the results are qualified "R" as rejected and unusable.
  - K.3 No other problems with compound quantitation and identification were observed for this project sample set.
- L. Conclusion:
  - L.1 Due to previously mentioned problems in Section K.2, results for sample BTR-LF01-SW01 are qualified "R" as rejected and unusable.
  - L.2 PCBs were not detected in the method blank or in all other samples at a concentration above the PQL (5 ppb) and the results are considered valid and usable for all purposes.
  - L.3 Due to continuing calibrations problems, the PQL for samples BTR-LF01-SW04 and BTR-LF01-SW02 are qualified "J" as estimated and usable for limited purposes.



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#### **DATA VALIDATION REPORT**

PROGRAM:

BARTER ISLAND / DEW Line RI/FS (ICF Project No. 41096-412-02)

**LABORATORY:** 

Friedman & Bruya, Inc. (Seattle, WA)

**REVIEWER:** 

Timothy Vonnahme

ANALYSIS:

Polychlorinated Biphenyls (PCBs) by USEPA Method 8080.

MATRIX:

Water and Soil

DATE:

April 12, 1994

# I. <u>INTRODUCTION:</u>

Friedman & Bruya, Inc. (FBI) (Seattle, WA) received 6 soil and 2 water samples from the Barter Island site on August 30, 1993 (referenced chain of custody record No. 395). Requested analyses were for polychlorinated biphenyls (PCBs) by the PCB organics extraction method described in Section 8 of the Project Sampling and Analysis Plan. The samples were analyzed for PCBs by USEPA Method 8080 (GC/ECD) on September 1 and 2, 1993.

The ICF site identification numbers and corresponding FBI laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	Matrix
BTR-LF04-SW01	1324	Water
BTR-LF04-SW02	1328	Water
BTR-LF04-S02	1334	Soil
BTR-LF04-SD01	1336	Soil
BTR-LF04-SD02	1338	Soil
BTR-LF01-SD01	1340	Soil
BTR-LF01-SD02	1342	Soil
BTR-LF01-SD03	1344	Soil

The analytical results for the soil samples were reported with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for PCBs for project water samples were lower than those specified in the Project Sampling and Analysis Plan. Since the low point of the initial calibration is 0.1 ppm, the correct PQL is 5 ppm. It is the

opinion of t hereviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1990, and the analytical guidelines in USEPA Method 8080, and the Project Sampling and Analysis Plan.

# II. VALIDITY & COMMENTS:

A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration:</u>

- B.1 The laboratory performed a five point initial calibration on GC instrument ICF6 on August 21, 1994. The range of the initial calibration was from 0.1 ppm to 10 ppm. All samples were quantitated using a linear regression curve calculated from the initial calibration. A percent relative standard deviation (%RSD) of 30.3% was calculated using calibration factors determined from the initial calibration. The %RSD of 30.3 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.
- B.2 The laboratory performed a five point initial calibration on GC Instrument ICF5 on August 21, 1993. All samples were quantitated using a linear regression curve calculated from the initial calibration. The range of the initial calibration was from 0.1 ppm to 10 ppm. A percent relative standard deviation (%RSD) of 37.2% was calculated using calibration factors determined from the initial calibration. The %RSD of 37.2 exceeds the recommended method criteria of 20.0%, therefore, the detected results are qualified "J" as estimated and usable for limited purposes.

C. Continuing Calibration:

- C.1 The continuing calibration (file 098R1901) analyzed on GC instrument ICF6 reported a percent recovery of 133%, exceeding the QC criteria of 75-125%. All detected results and the practical quantitation limits (PQLs) of the samples associated with this continuing calibration are qualified "J" as estimated and usable for limited purposes.
- C.2 All QC criteria for the other continuing calibrations were met and the results are considered acceptable.

D. <u>Laboratory Blanks:</u>

D.1 PCBs were not detected in the method blanks at a concentration above the PQL and the results are considered acceptable.

### E. <u>inst rumentBlanks:</u>

E.1 PCBs were not detected in the instrument blank at a concentration above the PQL and the results are considered acceptable.

#### F. Field Blanks:

F.1 There were no field blanks submitted for analysis with this project sample set.

### G. Field Replicate Analyses:

G.1 There were no field replicate samples submitted for analyses for this project sample set.

### H. Surrogate Recoveries:

- H.1 All surrogate recoveries were calculated referenced to the closest continuing calibration standard.
- H.2 All surrogate recoveries met applicable QC criteria, and the results are considered acceptable.

#### I. Matrix Spike/Matrix Spike Duplicate:

- 1.1 Sample number BTR-AOC09-S09 was used for the soil matrix spike/matrix spike duplicate analyses. No matrix spike/matrix spike duplicate analyses were submitted for the water samples.
- 1.2 All of the matrix spike/matrix spike duplicate QC criteria were met and the results are considered acceptable.

#### J. <u>System Performance:</u>

J.1 No problems with system performance were observed for the project sample analyses.

### K. Quantitation and Identification:

- K.1 Samples BTR-LF04-SW02 and BTR-LF01-SD03 exhibited some type of biogenic material interference within the PCB retention time window, but did not interfere with PCB identification. No PCBs were detected in the two samples.
- K.2 The PQLs for the water samples have been raised to 2500 ppm.
- K.3 No other problems with compound quantitation and identification were observed for this project sample set.

#### L. Conclusion:

- L.1 No PCBs were detected in the method blanks or the samples at a concentration above the PQL.
- L.2 Due to continuing calibration problems the PQLs for sample BTR-LF01-SD03 are qualified "J" as estimated and usable for limited purposes.

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#### **DATA VALIDATION REPORT**

PROGRAM: LABORATORY: Elmendorf AFB/Barter RI/FS (ICF Project No. 41096-412-02) Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Cynthia Schlag, ICF Kaiser Engineers

ANALYSIS:

Semivolatile Organic Compounds by USEPA Method 8270

MATRIX:

Soil and Water

**DATE:** January 19, 1994

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received nine (9) soil samples and six (6) water samples for semivolatile organic compound (SVOC) analyses by USEPA Method 8270 on August 16, 17, 18, 20, 21, and September 3, 1993. The water samples were extracted on August 21, 27, and 28, 1993 and analyzed for SVOCs by gas chromatography/mass spectrometry (GC/MS) on August 23, 24, 29 and September 3 and 4, 1993. The soil samples were extracted on August 30, 31 and September 3, 4 and 15, 1993 and analyzed for SVOCs by GC/MS on September 9, 16, 21, 28, 29, 30, and October 6 and 21, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-SS14-SW01	93.4301-01	Water
BTR-SS14-SD01	93.4301-04	Soil
BTR-AOC10-S04	93.4301-08	Soil
BTR-AOC14-SD01	93.4305-01	Soil
BTR-AOC14-S02	93.4305-06	Soil
BTR-AOC14-SW01	93.4305-07	Water
BTR-SD08-WEB	93.4179-01	Water
BTR-BKGD-SW01	93.4179-02	Water
BTR-BKGD-SD01	93.4179-04	Soil
BTR-SD08-SD01	93.4178-03	Soil
BTR-SS13-S02	93.4212-05	Soil
BTR-AOC9-2S11-1.5	93.4616-06	Soil
BTR-AOC08-S04	93.4302-04	Soil
BTR-AOC09-SW01	93.4302-08	Water
BTR-EB-04	93.4302-10	Water

The following QC sample designations were included in project documentation: sample numbers BTR-EB-04 and BTR-SD08-WEB were designated as "equipment blanks."

Soil sample results and quantitation limits were reported by the laboratory with an adjustment for moisture content.

Sample number BTR-SD08-SD01 was not analyzed by the laboratory due to the fact that the sample was not recovered during extraction. Therefore, the results of this sample could not be validated.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA SW-846 Method 8270, and the Project Sampling and Analysis Plan.

#### II. VALIDITY and COMMENTS:

#### A. <u>Technical Holding Times:</u>

- A.1 Sample number BTR-AOC09-SW01 exceeded the technical holding time criteria of 7 days. This sample exceeded the extraction holding time by one day and it is the opinion of the reviewer that this will not affect data quality.
- A.2 Technical holding time QC criteria were met for all other project sample analyses.
- B. GC/MS Instrument Performance Check:
  - B.1 All QC criteria for the decafluorotriphenylphosphine (DFTPP) tunes were met and the results are considered acceptable.
- C. Initial Calibration:
  - C.1 All QC criteria for the initial calibration were met and the results are considered acceptable.
- D. Continuing Calibration:
  - D.1 The percent differences (%Ds) in the continuing calibrations exceeded the  $\leq \pm 25\%$  QC validation criteria. The detected results and quantitation limits for the analytes listed on Table A are considered estimated (J) and usable for limited purposes only (see modified sample data sheets and Table A).

%Ds exceeding the  $\leq \pm 25\%$  QC validation criteria were observed for several analytes in the continuing calibrations performed on August 23, 29, September 3, 4, 7, 20, 28, 29, and October 20 and 21, 1993. These deviations are not expected to affect the quality of the results, except for those listed on Table A.

#### E. Laboratory Blanks:

E.1 Target analytes were detected in the method blanks listed at concentrations above the Practical Quantitation Limit (PQL):

Date extracted	<u>Analyte</u>	Concentration
09/03/93	Di-n-butylphthalate	0.587 mg/Kg
09/03/93	Benzyl alcohol	0.336 mg/Kg
09/03/93	Bis(2-ethylhexyl)phthalate	0.360 mg/Kg
09/15/93	Di-n-butylphthalate	0.714 mg/Kg

Due to method blank contamination, the result reported for di-n-butylphthalate in sample number BTR-AOC9-2S11-1.5 is considered nondetected (U) (see modified sample data sheets).

- E.2 Due to laboratory contamination, the result reported for di-n-butylphthalate in sample number BTR-BKGD-SD01 is considered nondetected (U) (see modified sample data sheets). Although not detected in the laboratory method blank, di-n-butylphthalate has historically been recognized as a common laboratory contaminant. It is the opinion of the reviewer that the di-n-butylphthalate reported in the sample noted above is an artifact.
- E.3 The laboratory observed benzyl alcohol to be a contaminant in the extraction process by finding benzyl alcohol in some of the method blanks. Therefore, benzyl alcohol results reported in sample numbers BTR-AOC10-S04 and BTR-BKGD-SD01 are considered nondetected (U) (see modified sample data sheets).
- E.4 Due to low surrogate recoveries in the acid fraction of the method blank extracted on August 27, 1993, the possibility of blank contamination in the acid fraction for all associated project samples cannot be determined.
- E.5 No other target analytes were detected in the method blanks at concentrations above the PQL and the results are considered acceptable.

#### F. Surrogate Recoveries:

- F.1 All acid surrogate recoveries for the laboratory method blank extracted on August 27, 1993 were below the 10% QC validation criteria. Therefore, the quantitation limits for all target analytes in the acid fraction are considered rejected (R) and unusable for all purposes (see modified sample data sheets).
- F.2 All surrogate recoveries for sample number BTR-AOC14-SD01 MS were below the 10% QC validation criteria. Therefore the quantitation limits for all target analytes are considered rejected (R) and unusable for all purposes (see modified sample data sheets).

F.3 The following percent surrogate recoveries, listed below, for sample numbers BTR-EB-04, BTR-EB-04 MS, and BTR-AOC14-SD01 were outside the method QC limits.

Sample No.	<u>Analyte</u>	Recovery	QC criteria
BTR-EB-04	2-Fluorobiphenyl	41%	43-116%
BTR-EB-04 MS	2-Fluorophenol	19%	21-100%
BTR-AOC14-SD01	2-Fluorphenol	10%	25-121%
BTR-AOC14-SD01	Phenol-d6	11%	24-113%
BTR-AOC14-SD01	Nitrobenzene-d5	10%	23-120%
BTR-AOC14-SD01	2-Fluorobiphenyl	11%	30-115%
BTR-AOC14-SD01	2,4,6-Tribromophenol	12%	19-122%
BTR-AOC14-SD01	Terphenyl-d14	11%	18-137%

The following associated detected and nondetected results are considered estimated (J) (see modified sample data sheets):

- all target analytes in sample number BTR-AOC14-SD01
- F.4 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

#### G. Field Blanks:

G.1 The following target analytes listed below were detected in the equipment blank at concentrations above the PQL:

Sample No.	mple No. <u>Analyte</u>	
BTR-EB-04	Phenol	0.027 mg/L
BTR-EB-04	2-Chlorophenol	0.069 mg/L
BTR-EB-04	4-Chloro-3-methylphenoi	0.075 mg/L
BTR-EB-04	Pentachlorophenol	0.046 mg/L

G.2 No other target analytes were detected in the field blank at concentrations above the PQL and the results are considered acceptable.

### H. <u>Laboratory Control Sample Analysis</u>:

H.1 Laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

#### I. <u>Laboratory Replicate Analysis:</u>

I.1 No laboratory replicate analysis is included with the project documentation.

#### J. Field Duplicate Analysis:

J.1 No field duplicate analyses were included with the project documentation.

#### K. Matrix Spike/Matrix Spike Duplicate Analysis:

K.1 All matrix spike (MS) compounds in sample BTR-AOC14-SD01 were below 10% recovery. According to USEPA guidelines, organic data are not qualified based on low MS recoveries alone. The affect on the quality of the data is not known.

K.2 The recoveries in the matrix spike (MS) and matrix spike duplicate (MSD) associated with sample number BTR-EB-04 did not meet the QC criteria as noted below

Sample No.	Compound	Recovery	QC Limits
BTR-EB-04 MS	Pvrene	48%	52-115%
BTR-EB-04 MSD	2-Chlorophenol	9%	23-134%
BTR-EB-04 MSD	4-Chloro-3-methylphenol	9%	22-147%
BTR-EB-04 MSD	Pentachlorophenol	0%	14-176%

According to USEPA guidelines, organic data are not qualified based on low MS recoveries alone. The affect on the quality of the data is not known.

The laboratory inappropriately used an equipment blank for MS/MSD analyses. Therefore, the accuracy and precision for the project samples based on a project sample matrix cannot adequately be determined.

K.3 All other MS and MSD analyses met the QC criteria and are considered acceptable.

#### L <u>Internal Standards</u>:

L.1 Internal standard areas for all analyses met applicable QC criteria and the results are considered acceptable.

#### M. Quantitation and Identification:

M.1 No problems were observed with analyte quantitation and identification in project sample analyses.

#### N. Conclusion:

- N.1 Due to the above noted low surrogate recoveries in the method blank and sample number BTR-AOC14-SD01 MS, select data are considered rejected and unusable for any purposes.
- N.2 Due to the above noted deficiencies in continuing calibration performance and low surrogate recoveries in the samples, select data are considered as estimates and usable for limited purposes only.
- N.3 Due to the above noted laboratory blank contamination, select data are considered nondetected.
- N.4 All other data are considered valid and usable for all purposes.

TABLE A CALIBRATIONS OUTSIDE %D CRITERIA			
Date	Compound	%D	Samples
Continuing Calibration - August 23, 1993	3,3'-dichlorobenzidine benzo(g,h,i) perylene	47.0 56.0	blank (aq) BTR-SD08-WEB BTR-BKGD-SW01
Continuing Calibration - August 29, 1993	bis(2-chloroisopropyl)ether 3,3'-dichlorobenzidine	26.3 34.5	BTR-SS14-SW01 BTR-SS14-SW01MS BTR-SS14-SW01MD
Continuing Calibration - September 3, 1993	3,3'-dichlorobenzidine	30.2	blank(aq)
Continuing Calibration - September 4, 1993	3,3'-dichlorobenzidine -	29.5	blank(aq) BTR-AOC14-SW01 BTR-AOC14-SW01MS BTR-AOC14-SW01MD BTR-AOC09-SW01
Continuing Calibration - September 7, 1993	hexachlorocyclopentadiene 2,4-dinitrophenol 4,6-dinitro-2-methylphenol	46.2 34.3 31.8	blank(soil)
Continuing Calibration - September 20, 1993	pentachlorophenol	27.4	BTR-AOC08-S04
Continuing Calibration - September 28, 1993	hexachlorocyclopentadiene	39.0	BTR-AOC14-SD01 BTR-AOC14-SD01MS BTR-AOC14-S02
Continuing Calibration - September 29, 1993	hexachlorocyclopentadiene	51.5	BTR-AOC14-SD01MD
Continuing Calibration - September 29, 1993	hexachlorocyclopentadiene	39.0	BTR-SS14-SD01MD
Continuing Calibration - October 20, 1993	di-n-octylphthalate benzo(k)fluoranthene benzo(a)pyrene	29.2 28.7 28.3	blank(soil)
Continuing Calibration - October 21, 1993	di-n-octylphthalate dibenz(a,h)anthracene benzo(g,h,i)perylene	28.9 26.8 26.8	BTR-AOC9-2S11-1.5 BTR-AOC9-2S11- 1.5MS

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#### DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: Keith Strout

ANALYSIS: Semi-Volatile Organic Compounds by USEPA Method 8270A

MATRIX: Water & Soil
DATE: January 18, 1994

#### INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received six (6) water samples and three (3) soil samples for Semi-Volatile Organic Compound (SVOC) analysis by USEPA Method 8270A on August 19, 1993 through August 24, 1993. The samples were extracted on August 21, 1993 through September 4, 1993 and analyzed for SVOCs by gas chromotography/mass spectrometry (GC/MS) on August 23, 1993, through September 29, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	$\underline{\mathtt{Matrix}}$
BTR-BKGD-S02	93.4175-02	SOIL
BTR-SD08-SEB	93.4175-03	WATER
BTR-SS13-SEB2	93.4213-04	WATER
BTR-LF03-SD07	93.4213-03	SOIL
BTR-SS13-WEB2	93.4211-01	WATER
BTR-LF01-SW03	93.4285-02	WATER
BTR-AOC10-SW01	93.4303-06	WATER
BTR-LF01-S01	93.4303-02	SOIL
BTR-EB-05	93.4303-05	WATER

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December, 1990 and USEPA Method 8270A and the Project Sampling and Analysis Plan.

The following QC sample designations were included in project sample analyses: sample numbers BTR-SD08-SEB, BTR-SS13-WEB2, and BTR-EB-05 were designated as equipment blanks.

## II. VALIDITY & COMMENTS:

- A. <u>Technical Holding Times:</u>
  - A.1 The technical holding time QC criteria were met for all project samples.
- B. <u>Instrument Tuning:</u>
  - B.1 The GC/MS instrument tuning criteria were met for all project sample analyses.
- C. <u>Initial Calibration</u>:
  - C.1 Initial calibration QC criteria were met for all project sample analyses.
- D. <u>Continuing Calibration</u>:
  - D.1 The percent differences (%Ds) in the continuing calibrations (CCVS) exceeded the  $\leq$   $\pm$  25% QC criteria. Therefore, the quantitation limits for the analytes listed below in the associated samples are considered estimated (J) (see modified laboratory reports):
  - Target analyte 3,3'-dichlorobenzidine in sample numbers BTR-EB-05, BTR-AOC10-SW01, BTR-SS13-SEB2, BTR-SS13-WEB, BTR-LF01-SW03 and BTR-SD08-SEB

<u>Date</u>	<pre>% Difference</pre>
08/23/93	46.9
08/25/93	32.1
08/25/93	39.1
08/29/93	34.5
08/29/93	36.9
	08/23/93 08/25/93 08/25/93 08/29/93

• Target analyte benzo(g,h,i)perylene in sample number BTR-SD08-SEB

CCVS File	<u>Date</u>	% Difference
B2303	08/23/93	56.0
B2316	08/23/93	55.0

• Target analyte bis(2-chloroisopropyl)ether in sample numbers BTR-SS13-SEB2 and BTR-SS13-WEB

CCVS File	<u>Date</u>	<pre>% Difference</pre>
B2503	08/25/93	63.0

D.2 All other continuing calibration QC criteria were met for all project sample analyses.

## E. Laboratory Blanks:

E.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

### F. Field Blanks:

F.1 No target analytes were detected in the field blanks at a concentration above the PQL and the results are considered acceptable.

## G. Field Duplicate Analysis:

G.1 There were no field duplicates associated with project sample analyses.

## H. Surrogate Recoveries:

- H.1 Surrogates were not added to sample BTR-LF01-S01 prior to extraction and the sample was not re-extracted. Since there were no target compounds detected in this sample, the quantitation limits in this sample are considered rejected (R) and the results are unusable for any purposes (see modified sample reports).
- H.2 The surrogate recoveries for 2-fluorobiphenyl in sample BTR-SD08-SEB and method blank B2906 were 42% and 38%, respectively. Although the above noted surrogate recoveries fell below the QC criteria of 43-116%, according to USEPA validation guidelines, data are not qualified if one surrogate is out of QC limits unless it is below 10% recovery.
- H.3 The surrogate QC criteria was met for all other project sample analyses.

# I. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>

I.1 The recoveries of 4-nitrophenol and pentachlorophenol in the matrix spike duplicate (MSD) analysis associated with sample BTR-LF03-SD07 exceeded the QC criteria as noted below.

Compound	Recovery	<u>QC Criteria</u>
4-Nitrophenol	124	11-114
Pentachlorophenol	120	17-109

According to USEPA validation guidelines, organic data are not qualified based on matrix spike recovery alone, it is the opinion of the reviewer that the quality of the data is not affected by the above noted deviations.

- I.2 The recoveries of pentachlorophenol in the matrix spike (MS) and MSD analyses associated with sample BTR-LF01-S01 were 1% and 6%, respectively, falling below the QC criteria of 14-126%.
- I.3 The relative percent differences (RPD) exceeding the advisory QC limits for the following two compounds were observed in the MS/MSD analyses:

Compound	RPD	QC Criteria
Acenaphthene	23	19
Pentachlorophenol	188	50

According to USEPA validation guidelines, organic data are not qualified based on matrix spike recovery alone, it is the opinion of the reviewer that the low MS recoveries are due to matrix interferences and the affect on the quality of the data is not known.

## J. System Performance:

J.1 No problems with system performance were observed in project sample analyses.

## K. Quantitation & Identification:

K.2 No problems were observed with sample quantitation and identification.

#### L. Conclusion:

- L.1 Due to fact that surrogates were not added to sample BTR-LF01-S01 prior to extraction, select data are considered rejected and unusable for any purposes.
- L.2 Due to deficiencies in the continuing calibrations, select data are considered estimated and usable for limited purposes only.
- $L.3 \ All \ other \ data \ are \ considered \ valid \ and \ usable \ for \ all \ purposes.$

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#### DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.

41096-4312-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage,

AK)

**REVIEWER:** Timothy Vonnahme

ANALYSIS: Pesticides by USEPA Method 8080

MATRIX: Water & Soil
DATE: January 18, 1994

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received four (4) water samples and two (2) soil samples for Pesticide analysis by USEPA Method 8080 on August 19 and 20, 1993. The samples were analyzed for Pesticides on August 23 and 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>MATRIX</u>
BTR-SS13-SEB2	93.4215-6	Water
BTR-SS13-WEB2	93.4215-7	Water
BTR-BKGD-SD01	93.4199-1	Soil
BTR-BKGD-SW01	93.4199-6	Water
BTR-BKGD-S02	93.4203-6	Soil
BTR-SD08-SEB	93.4203.8	Water

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December 1985, the standard operating procedure, "Guidelines for Validation of Pesticide/PCB Data Packages", the analytical guidelines in USEPA Method 8080 and the Project Sampling and Analysis Plan.

The following QC sample designations were included in project sample analyses: sample numbers BTR-SS13-SEB2, BTR-SS13-WEB2 and BTR-SD08-SEB were designated as equipment blanks.

## II. VALIDITY & COMMENTS:

- A. <u>Technical Holding Times:</u>
  A.1 Technical Holding time QC criteria were met for all project sample analyses.
- B. <u>Instrument Performance:</u>
  B.1 All DDT/Endrin breakdown QC criteria were met for all project sample analyses.
  - B.2 All retention time windows QC criteria were met for all project sample analyses.
  - B.3 All other QC criteria were met for all project sample analyses.
- C. <u>Initial Calibration:</u>
  C.1 Initial calibration QC criteria were met for all project sample analyses.
- D. Continuing Calibration:
   D.1 Continuing calibration QC criteria were met for all project sample analyses.
- E. Surrogate Recoveries:

  E.1 Surrogate spike percent recoveries (%Rs) for project analyses were observed to be lower than established control limits as follows:

Sample No.	<u>Surrogate</u>	<u> </u>	OC Limits
BLK	Tetrachloro-m-xylene	52	70-130%
BTR-SS13-SEB2	Tetrachloro-m-xylene	65	70-130%
BTR-SS13-WEB2	Tetrachloro-m-xylene	58	70-130%
BTR-BKGD-SW01	Tetrachloro-m-xylene	66	70-130%
BTR-BKGD-S02	Tetrachloro-m-xylene	49	70-130%
BTR-BKGD-S02	Decachlorobiphenyl	53	70-130%

The analytical results for alpha-BHC, beta-BHC, delta-BHC, aldrin, heptachlor, heptachlorepoxide and endosulfan I in sample BTR-BKGD-S02 are considered as estimates ("J") and usable for limited purposes.

The detected results for the sample noted above may be biased low and are the minimum values at which these compounds are present in the samples. Where the results are nondetected false negatives may exist.

E.2 All other surrogate QC criteria were met for project sample analyses.

F. Laboratory Blanks:

F.1 No target analytes were detected in the method blanks at concentrations above the practical quantitation limits (PQLs), and the results are considered acceptable.

G. Field Blanks:

G.1 No target analytes were detected in the field blanks at concentrations above the PQL and the results are considered acceptable.

H. FIELD DUPLICATE ANALYSIS:

H.1 There were no field duplicates associated with these samples.

I. Matrix Spike/Matrix Spike Duplicate:

I.1 The matrix spike/matrix spike duplicate samples associated with BTR-BKGD-SD01 contained the following analytes outside the QC limits:

Sample No.	Compound	<u> </u>	OC Limits
SPKA:	4,4-DDT	43	70-130%
	Methoxychlor	43	70-130%
DUPA	4.4-DDT	32	70-130%
	Methoxychlor	36	70-130%

No action is taken on matrix spike/matrix spike duplicate analyses alone, therefore all QC criteria were met.

Laboratory bench matrix spike/matrix spike duplicate samples associated with the above sample were analyzed, and all QC criteria were met.

- I.2 All QC criteria were met for all additional matrix spike/matrix spike duplicate analyses.
- J. <u>Quantitation and Identification:</u> J.1 No problems were encountered with sample quantitation and identification for all samples.
- K. <u>System Performance:</u> K.1 No problems with system performance were observed in project sample analyses.
- L. Conclusion:
  - L.1 Due to low surrogate recoveries in sample BTR-BKGD-SO2, all analytical results are flagged as estimates and are considered usable for limited purposes.
  - L.2 All other data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.

41096-4312-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage,

AK)

**REVIEWER:** Timothy Vonnahme

ANALYSIS: Polychlorinated Biphenyls (PCBs) Organic Compounds

by USEPA Method 8080

MATRIX: Water & Soil
DATE: January 17, 1994

## I. <u>INTRODUCTION:</u>

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received four (4) water samples and four (4) soil samples for PCB analysis by USEPA Method 8080 on August 19 and 20, 1993. The samples were analyzed for PCBs on August 23 and 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab. Sample No.	<u>Matrix</u>
BTR-SS13-SEB2	93.4215-06	Water
BTR-SS13-WEB2	93.4215-07	Water
BTR-BKGD-SD01	93.4199-01	Soil
BTR-BKGD-SW01	93.4199-06	Water
BTR-BKGD-S02	93.4203-06	Soil
BTR-SD08-SEB	93.4203-08	Water
BTR-SS13-S02	93.4216-10	Soil
BTR-SS13-SD01	93.4216-05	Soil

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document, "National Functional Guidelines for Organic Data Review", December 1990, the standard operating procedure, "Guidelines for Validation of Pesticide/PCB Data Packages", December 1992, the analytical guidelines in USEPA Method 8080 and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

- A. Technical Holding Times:
  A.1 Technical Holding time QC criteria were met for all project sample analyses.
- B. Instrument Performance:

  B.1 All DDT/Endrin breakdown QC criteria were met for all project sample analyses.
  - B.2 All other QC criteria were met for all project sample analyses.
- C. <u>Initial Calibration:</u>
  C.1 All initial calibration QC criteria were met for all project sample analyses.
- D. Continuing Calibration:

  D.1 The percent recovery (%R) between the calculated and true amount for the compound Aroclor 1254 in the continuing calibration standard analyzed on August 24, 1993 was reported to be 123%, exceeding the recommended QC limit of 115%. Since no Aroclor 1254 was detected in the samples, the above noted deviation is not expected to have an adverse effect on data quality.
  - D.2 All other continuing calibration QC criteria were met for all project sample analyses.
- E. <u>Surroqate Recoveries:</u>
  E.1 The following percent surrogate recoveries (%Rs), listed below, were outside established control limits:

Sample No.	Surrogate	<u> </u>	OC Limits
BTR-SS13-S02	Tetrachloro-m-xylene	61	70-130%
BLK	Tetrachloro-m-xylene	5 <b>2</b>	70-130%
SPK	Tetrachloro-m-xylene	49	70-130%
DUP	Tetrachloro-m-xylene	35	70-130%
BTR-SS13-SEB2	Tetrachloro-m-xylene	65	70-130%
BTR-SS13-WEB2	Tetrachloro-m-xylene	58	70-130%

The following detected and nondetected results are considered estimated (J) (The laboratory reports for the SPK and DUP were not located in the data packages, therefore there are no modified data sheets for these QC samples provided in the report appendix.):

 aroclors 1016, 1221, 1232 and 1242 in QC sample numbers SPK and DUP The detected results for the samples noted above may be biased low and are the minimum values at which these compounds are present in the samples. Where the results are nondetected, false negatives may exist.

E.2 All other surrogate QC criteria were met for project sample analyses.

## F. Laboratory Blanks:

F.1 No target analytes were detected in the method blanks at a concentrations above the practical quantitation limits (PQL), and the results are considered acceptable.

## G. <u>Field Blanks:</u>

G.1 No target analytes were detected in the field blanks at a concentrations above the (PQL), and the results are considered acceptable.

## H. Field Duplicate Analysis:

H.1 There were no field duplicates associated with these samples.

## I. <u>Matrix Spike/Matrix Spike Duplicate:</u>

I.1 All QC criteria were met for the matrix spike/matrix spike duplicate analyses associated with all project sample analyses.

## J. Quantitation and Identification:

J.1 No problems were encountered with sample quantitation and identification for all project sample analyses.

### K. System Performance:

K.1 No problems with system performance were encountered in project sample analyses.

## L. Conclusion:

L.1 Due to deficiencies in surrogate recoveries, select data are considered estimated and usable for limited purposes.

L.2 All other data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: Keith Strout

ANALYSIS: Total Organic Carbon by USEPA Method 9060

MATRIX: Water & Soil DATE: January 19, 1994

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received six (6) water samples and three (3) soil samples for Total Organic Carbon (TOC) analysis by EPA Method 9060 on August 19, 1993 through August 24, 1993. The samples were analyzed for TOC on August 30, 1993 through September 2, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>	<u>Matrix</u>
BTR-LF01-SW03	93.4285-02	Water
BTR-SD08-SEB	93.4175-03	Water
BTR-BKGD-S02	93.4175-02	Soil
BTR-LF03-SD07	93.4213-03	Soil
BTR-SS13-SEB2	93.4213-04	Water
BTR-SS13-WEB	93.4211-01	Water
BTR-AOC10-SW01	93.4303-06	Water
BTR-LF01-S01	93.4303-02	Soil
BTR-EB-05	93.4303-05	Water

Sample numbers BTR-SD08-SEB, BTR-SS13-SEB2, BTR-SS13-WEB and BTR-EB-05 were designated as equipment blanks.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December, 1990 and USEPA Method 9060 and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

## A. <u>Technical Holding Times:</u>

A.1 Sample number BTR-LF01-S01 was sampled on August 21, 1993 and analyzed on September 20, 1993, exceeding the technical holding time QC criteria of twenty-eight (28) days by two (2) days. It is the opinion of the reviewer that this is not expected to have an adverse effect on the data quality.

A.2 All other technical holding time criteria were met for project sample analyses.

## B. <u>Initial Calibrations</u>:

B.1 Initial calibration QC criteria were met for all project sample analyses.

## C. <u>Continuing Calibrations:</u>

C.1 The calibration verification standard recoveries for the samples listed below fell outside the advisory QC limits of 90-110%. Therefore the detected results for TOC in samples BTR-AOC10-SWO1 and BTR-LF01-SWO3 and the practical quantitation limits (PQL) for TOC in sample BTR-EB-05 are considered as estimated (J) and usable for limited purposes (see modified sample data sheets).

Sample No.	CVS % Recovery
BTR-A0C10-SW01	114%
BTR-EB-05	114%
BTR-LF01-SW03	85%

## D. <u>Laboratory Blanks</u>:

D.1 TOC was not detected in the method blanks associated with these samples at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

## E. Field Blanks:

 $\rm E.1~TOC$  was not detected in the equipment blank at a concentration above the (PQL) and the results are considered acceptable.

# F. <u>Laboratory Control Sample Analysis:</u>

F.1 The laboratory control sample (LCS) recovery associated with samples BTR-LF01-SW03 and BTR-SS13-WEB was 87%, falling marginally below the QC criteria of 89-110%. It is the opinion of the reviewer that this is not expected to have an adverse effect on the data quality.

F.2 All other LCS percent recoveries met applicable QC criteria for accuracy.

- G. <u>Laboratory Replicate Analysis:</u>
  - G.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.
- H. Field Duplicate Analysis:
  - H.1 There were no field duplicates designated for analysis with these samples.
- I. Matrix Spike:
  - I.1 The matrix spike recovery met all applicable QC criteria and the results are considered acceptable.
- J. Quantitation:
  - J.1 No problems were encountered with sample quantitation and the results are considered acceptable.
- K. <u>Conclusion:</u>
  - K.l Due to deficiencies in calibration, select data are considered estimates and usable for limited purposes. All other data are considered valid and usable for all purposes.

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#### **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Cynthia Schlag

ANALYSIS:

Total Organic Carbon by USEPA Method 9060

**MATRIX:** 

Water

DATE:

January 27, 1994

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples for Total Organic Carbon (TOC) analysis by USEPA Method 9060 on August 20, 1993. The samples were analyzed for TOC on August 31 and September 2, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	
BTR-AOC09-SW01	<b>93.430</b> 5-08	
BTR-EB-04	93.4305-10	
BTR-LF04-SW01	93.4286-01	

The following QC sample designation was included in project documentation: sample number BTR-EB-04 was designated as an "equipment blank."

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis* (October 1989), USEPA Method 9060 and the Project Sampling and Analysis Plan.

#### **VALIDITY & COMMENTS:** II.

#### Α. **Technical Holding Times:**

Technical holding time QC criteria were met for all project samples.

#### В. **Initial Calibrations:**

All QC criteria for the initial calibration were met and the results are considered acceptable.

## C. <u>Continuing Calibrations:</u>

C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

## D. <u>Laboratory Blanks:</u>

D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

## E. Field Blanks:

E.1 The target analyte was not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.

# F. <u>Laboratory Control Sample Analysis:</u>

- F.1 The laboratory control sample (LCS) recovery associated with sample BTR-EB-04 was 87%, falling marginally below the QC criteria of 89-110%. It is the opinion of the reviewer that this is not expected to have an adverse effect on data quality.
- F.2 All other LCS percent recoveries met applicable QC criteria for accuracy.

## G. Laboratory Replicate Analysis:

G.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

## H. Field Duplicate Analysis:

H.1 No field duplicates analysis are included with project documentation.

### Matrix Spike:

I.1 The matrix spike recovery met all applicable QC criteria and the results are considered acceptable.

#### J. Quantitation:

J.1 No problems were encountered with sample quantitation and the results are considered acceptable.

#### K. Conclusion:

K.1 All data are considered valid and usable for all purposes.

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## DATA VALIDATION REPORT (Revised)

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: Traci Grizzle, ICF Kaiser Engineers

ANALYSIS: Total and Dissolved Metals by USEPA Method 6010

MATRIX: Soil and Water

DATE: January 4, 1994 (Revision February 2, 1994)

## I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received two (2) water samples for total and dissolved metals analyses and one (1) soil sample for total metals analyses by USEPA Method 6010 on August 19, 1993. The samples were digested on August 20 and August 24, 1993 and analyzed for metals by inductively coupled plasma atomic emission spectroscopy (ICP) on August 24 and August 25, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. laboratory sample identification numbers are listed below.

<u>ICF Site No.</u>	<u>Lab Sample No.</u>
BTR-SD08-WEB	4179-1
BTR-BKGD-SWO1	4179-2
BTR-SD08-WEB (F)	4179-1
BTR-BKGD-SWO1 (F)	4179-2
BTR-BKGD-SDO1	4179-4
BTR-BKGD-SWO1 BTR-SDO8-WEB (F) BTR-BKGD-SWO1 (F)	4179 - 2 4179 - 1 4179 - 2

The above noted sample numbers identified as (F) were field-filtered samples and analyzed for dissolved metals on August 24, 1993.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 6010.

### II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration</u>:

B.1 The percent recovery for silver in the initial calibration performed on August 24, 1993 was marginally below the applicable QC criteria. This slight discrepancy is not expected to affect data quality.

B.2 All other initial calibration QC criteria were met for all project sample analyses.

C. <u>Continuing Calibrations</u>:

C.1 Continuing calibration QC criteria were met for all project sample analyses.

D. Blank Analyses:

D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

E. ICP Interference Check Sample (ICS) Analyses:

E.1 The spike recovery for the indicated target analyte exceeded the established QC limits for the interference check sample (ICS) analysis performed on August 24, 1993 as follows:

<u>Analyte</u>	Recovery	QC limits
7inc	132%	80-120%

The ICS recovery for zinc exceeded the upper QC limit of 120%, indicating a possible high bias. However, since the zinc results for all samples were non-detected, no adverse effects are expected on data quality due to the above noted ICS recovery. The ICS analyses met all other applicable QC criteria.

- F. <u>Laboratory Control Sample Analyses:</u>
  - F.1 All laboratory control sample QC criteria were met.
- G. Laboratory Replicate Analysis:
  - G.1 There were no laboratory replicate analyses included in the project documentation.
- H. Field Duplicate Analysis:
  - H.1 There were no field duplicate analyses included in the project documentation.

## I. Matrix Spike Analysis:

I.1 Sample number BTR-SD08-WEB was utilized for the matrix spike (MS) analyses. The MS recoveries for aluminum and iron were 225% and 3800%, respectively; exceeding the advisory QC criteria of 75-125%. However, the sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of these high MS recoveries. Post-digestion spike recovery analyses were performed on August 25, 1993 and the recovery results for all re-analyses met applicable QC criteria.

## J. Quantitation and Identification:

J.1 No problems were observed with analyte quantitation and identification in project sample analyses.

## K. <u>Conclusion</u>:

K.1 All data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: K

Keith Strout

ANALYSIS:

Total Dissolved Solids by USEPA Method 160.1

MATRIX:

Water

DATE:

January 19, 1994

## I. INTRODUCTION:

Commercial Testing & Engineering Co.(CT&E) (Anchorage, AK) received three (3) water samples for total dissolved solids (TDS) analysis by USEPA Method 160.1 on August 18 through 21, 1993. The samples were analyzed for total dissolved solids (TDS) on August 27 and 31, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>
BTR-AOC10-SW01	93.4303-06
BTR-LF01-SW03	93.4285-02
BTR-SS13-WEB	93.4211-01

Sample number BTR-SS13-WEB was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses", October 1989, USEPA Method 160.1 and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

### A. <u>Technical Holding Times:</u>

A.1 Sample number BTR-AOC10-SW01 was sampled on August 21, 1993 and analyzed on August 31, 1993, exceeding the technical holding

DEWTDS01.DVR

time QC criteria of seven (7) days by three (3) days. Therefore, the detected sample result in the above noted sample is considered as an estimated (J) and usable for limited purposes only.

A.2 All technical holding time QC criteria were met for other project sample analyses.

## B. <u>Calibration</u>:

- B.1 The calibration recovery associated with sample number BTR-LF01-SW03 was 120%, slightly exceeding the advisory QC recovery criteria of 83-117%. Therefore, the detected result for TDS in the above noted sample is considered as an estimated (J) and usable for limited purposes.
- B.2 All other calibration QC criteria were met for sample calibration analyses.

## C. <u>Laboratory Blanks:</u>

- C.1 TDS was detected in the method blank associated with sample number BTR-AOC10-SW01 at a concentration of 12 mg/L, exceeding the QC criteria of 10 mg/L. Therefore the practical quantitation limit for TDS in the above noted sample is raised to 12 mg/L. This is not expected to have an effect on the TDS result in the above noted sample.
- C.2 All other QC criteria were met for the TDS analyses in the laboratory blank analyses and the results are considered acceptable.

## D. Field Blanks:

D.1 TDS was detected in the equipment blank BTR-SS13-WEB at a concentration of 70 mg/L. This is not expected to have an effect on the detected results of sample numbers BTR-AOC10-SW01 and BTR-LF01-SW03, because the above noted equipment blank is not associated with the two samples.

## E. <u>Laboratory replicate Analyses:</u>

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

## F. Field Duplicate Analysis:

F.1 There were no field duplicate analyses associated with these samples.

#### G. Quantitation:

G.1 No problems were encountered with sample quantitation.

#### H. <u>Conclusion</u>:

H.1 Due to exceeded holding time and deficiency in calibration, select data are considered estimates and usable for limited



purposes. All other data are considered valid and usable for all purposes.

ICF KAISER ENGINEERS, INC. 1800 HARRISON STREET P.O. Box 23210 OAKLAND, CALIFORNIA 94612-3430 510/419-6000 FAX 510/419-5355

#### DATA VALIDATION REPORT

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Sharon Lin, ICF Kaiser Engineers, Inc.

ANALYSIS:

Total Dissolved Solids by USEPA Method 160.1

MATRIX:

Water

DATE:

January 27, 1994

#### I. INTRODUCTION:

Commercial Testing & Engineering Co.(CT&E) (Anchorage, AK) received one (1) water sample for Total Dissolved Solids (TDS) analysis by USEPA Method 160.1 on August 20, 1993. The sample was analyzed for TDS on August 27, 1993.

The ICF site identification number and corresponding CT&E laboratory sample identification number are listed below.

ICF Site No.

Lab Sample No.

BTR-LF04-SW01

4286-1

The analytical result is presented on modified sample data sheet submitted by the laboratory. (Definitions of data qualifiers are listed in Table 1B). This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis," October 1989, the analytical guidelines in USEPA Method 160.1 and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

Technical Holding Times: Α.

All technical holding time QC criteria were met for project sample analyses.

В. Calibration:

> All applicable QC criteria were met for sample calibration analyses.

C. Laboratory Blanks:

C.1 All QC criteria were met for the TDS analyses in the laboratory blank analyses and the results are considered acceptable.

D. <u>Field Blanks:</u>

D.1 There were no field blanks analyses associated with the project sample.

E. Laboratory replicate Analyses:

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

F. Field Duplicate Analysis:

F.1 There were no field duplicate analyses associated with the project sample.

G. Quantitation:

G.1 No problems were encountered with sample quantitation.

H. Conclusion:

H.1 All data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Sharon Lin, ICF Kaiser Engineers, Inc.

ANALYSIS:

Total Dissolved Solids by USEPA Method 160.1

MATRIX:

Water

DATE:

January 21, 1994

#### INTRODUCTION: I.

Commercial Testing & Engineering Co.(CT&E) (Anchorage, AK) received five (5) water samples for Total Dissolved Solids (TDS) analysis by USEPA Method 160.1 on August 19 and 24, 1993. The samples were analyzed for TDS on August 23 and 31, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>
BTR-SD08-WEB	4179-1
BTR-BKGD-SW01	4179-2
BTR-BKGD-SW02	4179-3
BTR-AOCO9-SW01	4302-8
BTR-AOC14-SW01	4305-7

Sample number BTR-SD08-WEB was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses", October 1989, the analytical guidelines in USEPA Method 160.1 and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

#### A. <u>Technical Holding Times:</u>

A.1 The following samples exceeded the technical holding time QC criteria of seven (7) days. Therefore, the results in the following listed samples are considered as estimates (J) and usable for limited purposes only.

Sample	Collection	Analyses	Days
<u>Number</u>	<u>Date</u>	<u>Date</u>	<u>Exceeded</u>
BTR-AOC09-SW01	8/20/93	8/31/93	4
BTR-AOC14-SW01	8/21/93	8/31/93	3

A.2 All other technical holding time QC criteria were met for project sample analyses.

## B. <u>Calibration</u>:

B.1 All applicable QC criteria were met for sample calibration analyses.

#### C. Laboratory Blanks:

- C.1 TDS was detected in the method blank associated with all samples at a concentration of 12 mg/L, exceeding the QC criteria of 10 mg/L. Therefore the practical quantitation limit for TDS in all associated samples is raised to 12 mg/L. This is not expected to have an effect on TDS results in the indicated samples.
- C.2 All other QC criteria were met for the TDS analyses in the laboratory blank analyses and the results are considered acceptable.

## D. <u>Field Blanks:</u>

D.1 TDS was detected in equipment blank BTR-SD08-WEB at a concentration of 30 mg/L. Due to high concentrations of TDS detected in the associated sample numbers BTR-BKGD-SW01 and BTR-BKGD-SW02, the TDS result in the above noted equipment blank is not qualified.

#### E. Laboratory replicate Analyses:

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

## F. Field Duplicate Analysis:

F.1 There were no field duplicate analyses associated with these samples.

#### G. Quantitation:

G.1 No problems were encountered with sample quantitation.

# H. <u>Conclusion:</u>

H.l Due to exceeded holding times, select data are considered as estimates and usable for limited purposes. Due to method blank contaminations, select PQLs were raised. All other data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: Keith Strout

ANALYSIS: Total Suspended Solids by USEPA Method 160.2

MATRIX: Water

**DATE:** January 19, 1994

### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples for Total Suspended Solids (TSS) analysis by USEPA Method 160.2 on August 18, 1993 through 21, 1993. The samples were analyzed for TSS on August 24 and 31, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>
BTR-AOC10-SW01 BTR-LF01-SW03	93.4303-06 93.4285-02
BTR-SS13-WEB	93.4211-01

Sample number BTR-SS13-WEB was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses", October 1989, the analytical guidelines in USEPA Method 160.2 and the Project Sampling and Analysis Plan.

#### II. VALIDITY & COMMENTS:

## A. <u>Technical Holding Times:</u>

A.1 Sample number BTR-AOC10-SW01 was sampled on August 21, 1993 and analyzed on August 31, 1993, exceeding the technical holding time QC criteria of seven (7) days by three (3) days. Therefore,

the detected sample result in the above noted sample is considered as an estimate (J) and usable for limited purposes only.

A.2 All technical holding time QC criteria were met for other project sample analyses.

### B. Calibration:

B.1 Method calibration is not a requirement for USEPA Method 160.2.

### C. Laboratory Blanks:

C.1 TSS was not detected in the method blanks associated with the samples at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

## D. <u>Field Blanks:</u>

D.1 TSS was detected in equipment blank BTR-SS13-WEB at a concentration of 7 mg/L. This is not expected to have an effect on the detected results of sample numbers BTR-AOC10-SW01 and BTR-LF01-SW03, because the above noted equipment blank is not associated with the two samples.

## E. <u>Laboratory Replicate Analyses:</u>

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

#### F. Field Duplicate Analyses:

F.1 There were no field duplicate analyses associated with these samples.

#### G. Quantitation:

G.1 No problems were encountered with sample quantitation.

### H. <u>Conclusion:</u>

H.1 Due to exceeded holding time, select data is considered as an estimate and usable for limited purposes. All other data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: Sharo

Sharon Lin, ICF Kaiser Engineers, Inc.

ANALYSIS:

Total Suspended Solids by USEPA Method 160.2

MATRIX:

Water

DATE:

January 24, 1994

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received five (5) water samples for Total Suspended Solids (TSS) analysis by USEPA Method 160.2 on August 19 and 24, 1993. The samples were analyzed for TSS on August 24 through September 2, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

<u>ICF Site No.</u>	<u> Lab Sample No.</u>
BTR-SD08-WEB	4179-1
BTR-BKGD-SW01	4179-2
BTR-BKGD-SW02	4179-3
BTR-AOCO9-SW01	4302 - 8
BTR-AOC14-SW01	4305 - 7

Sample number BTR-SD08-WEB was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses", October 1989, the analytical guidelines in USEPA Method 160.2 and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

#### A. <u>Technical Holding Times</u>:

A.1 The following samples exceeded the technical holding time QC criteria of seven (7) days. Therefore, the results in the following listed samples are considered as estimates (J) and usable for limited purposes only.

Sample	Collection	Analyses	Days
<u>Number</u>	<u>Date</u>	<u>Date</u>	<u>Exceeded</u>
BTR-AOC09-SW01	8/20/93	8/31/93	4
BTR-AOC14-SW01	8/21/93	9/02/93	5

A.2 All other technical holding time QC criteria were met for project sample analyses.

## B. <u>Calibration</u>:

B.1 Method calibration is not a requirement for USEPA Method 160.2.

## C. <u>Laboratory Blanks:</u>

C.1 TSS was not detected in the method blanks associated with the samples at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

## D. Field Blanks:

D.1 TSS was detected in equipment blank BTR-BKGD-WEB at a concentration of 3.5 mg/L. Due to elevated TSS concentration detected in the above noted equipment blank, the detected TSS result in sample number BTR-BKGD-SW01 is considered as an estimate (J) and usable for limited purposes only.

## E. <u>Laboratory Replicate Analyses:</u>

E.1 Laboratory replicate analyses submitted with project data met all applicable QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

# F. Field Duplicate Analyses:

F.1 There were no field duplicate analyses associated with these samples.

## G. Quantitation:

G.1 No problems were encountered with sample quantitation.

#### H. Conclusion:

H.1 Due to exceeded holding times and high TSS concentration detected in the equipment blank, select data are considered as estimates and usable for limited purposes. All other data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT (Revised)

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02) PROGRAM:

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

Keith Strout, ICF Kaiser Engineers REVIEWER:

Total Metals by USEPA Method 6010 and USEPA Method 7841 (Thallium) ANALYSIS:

MATRIX: Water & Soil

January 12, 1994 (Revision February 2, 1994) DATE:

#### Ι. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples and two (2) soil samples for total metals analyses by USEPA Method 6010 and thallium analyses by USEPA Method 7841 on August 19 through 24, 1993. The samples were digested on August 23 through 28, 1993, and analyzed for total metals by inductively coupled plasma atomic emission spectroscopy (ICP) and for thallium by atomic absorption furnace technique (GFAA) on August 24 through 30, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab. Sample No.	<u>Matrix</u>
BTR-LF01-S01	93.4303-02	Soil
BTR-EB-05	93.4303-05	Water
BTR-SS13-SEB2	93.4213-04	Water
BTR-BKGD-S02	93.4175-02	Soil
BTR-SD08-SEB	93.4175-03	Water

Sample numbers BTR-EB-05, BTR-SS13-SEB2 and BTR-SD08-SEB were designated as equipment blanks.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B.

This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989, USEPA Method 6010 and USEPA Method 7841, and the Project Sampling and Analysis Plan.

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## II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration</u>:

B.1 Initial calibration QC criteria were met for project sample analyses.

C. <u>Continuing Calibration</u>:

C.1 A percent recovery (%R) of 88% was obtained for sodium analyte in the continuing calibration verification analyses performed on August 24, 1993, falling outside the advisory QC limits of 90-110%. Therefore, the detected result for sodium in sample BTR-SD08-SEB is estimated (J) and usable for limited purposes only (see modified sample data sheets).

C.2 Continuing calibration QC criteria were met for all other project sample analyses.

D. <u>Laboratory Blanks</u>:

D.1 The target analytes were not detected in the calibration blanks at a concentration above the Practical Quantitation Limit (PQL) and the results are considered acceptable.

E. Field Blanks:

E.1 Iron was detected in the equipment blank BTR-EB-05 at a concentration of 0.200~mg/L, exceeding the QC criteria of 0.100~mg/L. However, since iron was detected at a concentration of 5000 mg/Kg (greater than 10X the PQL) in the associated sample number BTR-LF01-S01, data were not qualified.

E.2 No other target analytes were detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

F. Field Duplicate Analysis:

F.1 There were no field duplicates analyses included in the project documentation associated with these samples.

G. <u>Laboratory Replicate Analysis:</u>

G.1 The sample duplicate analyses associated with sample BTR-BKGD-S02 exceeded the QC criteria of  $\leq$ 50% for precision as measured by Relative Percent Difference (RPD) for the following analytes:

<u>Analytes</u>	RPD
Ca	63.0
Mg	74.0

- All detected results for the above analytes in sample number BTR-BKGD-S02 are considered as estimates (J) and usable for limited purposes (see modified sample data sheets).
- G.2 All other analytes in the above duplicate analyses, and all other duplicate analyses associated with project samples met all QC criteria and the results are considered acceptable.
- H. <u>ICP Interference Check Sample (ICS) Analysis:</u>H.1 The ICS analyses met all applicable QC criteria.
- I. <u>Laboratory Control Sample Analysis:</u>
  I.1 All laboratory control sample analyses associated with project samples met applicable QC criteria and the results are considered acceptable.
- J. Matrix Spike Analysis:

  J.1 The matrix spike (MS) recoveries for the target analytes were outside the established QC limits of 75-125% in the samples listed below:

Sample Number	<u>Analyte</u>	Recovery
BTR-BKGD-S02	Aluminum	225%
BTR-SD08-SEB	Aluminum	225%
BTR-BKGD-S02	Calcium	198%
BTR-SD08-SEB	Calcium	198%
BTR-BKGD-S02	Iron	-3800%
BTR-SD08-SEB	Iron	- 3800%
BTR-LF01-S01	Magnesium	70%
BTR-EB-05	Magnesium	70%
BTR-BKGD-S02	Magnesium	143%
BTR-SD08-SEB	Magnesium	143%
BTR-BKGD-S02	Manganese	60%
BTR-SD08-SEB	Manganese	60%
BTR-LF01-S01	Sodium	-110%
BTR-EB-05	Sodium	-110%
BTR-SS13-SEB2	Sodium	1466%

The sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of the deviations in MS recoveries. Post-digestion spike recovery analyses were performed on August 24 through 30, 1993. The recovery results for all post-digestion spike analyses met applicable QC criteria.

J.2 All remaining analytes in the above matrix spike analyses, and all other matrix spike analyses associated with project samples met all acceptable criteria and the results are considered acceptable.

## K. Quantitation:

 $K.1\,\,$  No problems were encountered with sample quantitation in project sample analyses.

## L. Conclusion:

L.1 Due to the above noted deficiencies in continuing calibration check and laboratory replicate analyses, select data are considered estimated and usable for limited purposes only. All other data are considered valid and usable for all purposes.

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## DATA VALIDATION REPORT

Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02) PROGRAM:

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

Sharon Lin, ICF Kaiser Engineers, Inc. REVIEWER:

Total & Dissolved Metals by USEPA Method 6010 & ANALYSIS:

Thallium by USEPA Method 7841

MATRIX: Soil and Water DATE: January 27, 1994

#### INTRODUCTION: I.

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received one (1) water and one (1) soil sample for total and dissolved metals analyses by USEPA Methods 6010 and 7841 on August 20 and 24, 1993. The samples were digested on August 27 and 28, 1993 and analyzed for total metals by inductively coupled plasma atomic emission spectroscopy (ICP) and for thallium by atomic absorption furnace technique (GFAA) on August 28 through 30, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>	<u>Matrix</u>
BTR-LF04-SW01	4286-1	Water
BTR-LF04-SD01	4286 - 3	Soil
BTR-LF04-SW01 (F)	4286-1	Water

Sample number BTR-LF04-SW01 (F) was designated as a field-filtered sample and analyzed for dissolved metals and dissolved thallium by ICP and GFAA, respectively, on August 30, 1993.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis," October 1989, USEPA Method 6010, USEPA Method 7841 and the Project Sampling and Analysis Plan.

## II. VALIDITY and COMMENTS:

- A. <u>Technical Holding Times</u>:
  - A.1 Technical holding time QC criteria were met for all project sample analyses.
- B. Initial Calibration:
  - B.1 Initial calibration QC criteria were met for project sample analyses.
- C. <u>Continuing Calibrations</u>:
  - C.1 Continuing calibration QC criteria were met for project sample analyses.
- D. <u>Laboratory Blank Analyses:</u>
  - D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.
- E. Field Blanks:
  - E.1 There were no field blank analyses included in the project documentation.
- F. Field Duplicate Analysis:
  - F.1 There were no field duplicate analyses included in the project documentation.
- G. <u>Laboratory Replicate Analysis:</u>
  - G.1 There were no laboratory replicate analyses included in the project documentation.
- H. ICP Interference Check Sample (ICS) Analyses:
  - H.1 All applicable QC criteria were met for the ICS analyses.
- I. <u>Laboratory Control Sample Analyses:</u>
  - I.1 All laboratory control sample analyses associated with project samples met applicable QC criteria and the results are considered acceptable.

## J. <u>Matrix Spike Analysis:</u>

- J.l The matrix spike (MS) recovery analysis associated with sample number BTR-LF04-SW01 was not performed and this should be noted. However, post-digestion spike analyses were performed and the results met all applicable QC criteria.
- J.2 The MS recovery results for the following target analytes exceeded the established QC limits of 75-125% in the sample listed below:

Sample Number	<u>Analyte</u>	<pre>%Recovery</pre>
BTR-LF04-SD01-MS	Aluminum	21400
BTR-LF04-SD01-MS	Iron	360

Due to above noted deviations in MS recoveries, post-digestion spike recovery analyses were performed on August 29, 1993. The recovery results for all post-digestion spike analyses met applicable QC criteria and the results are considered acceptable.

 $\rm J.3$   $\,$  All other applicable QC criteria were met for the MS analyses.

### K. Quantitation:

K.1 No problems were observed with analyte quantitation in project sample analyses.

## L. <u>Conclusion</u>:

L.1 All data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT (Revised)

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: Traci Grizzle, ICF Kaiser Engineers
ANALYSIS: Total Metals by USEPA Method 6010

MATRIX: Soil

DATE: January 4, 1994 (Revision February 2, 1994)

## I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received one (1) soil sample for total metals analyses by USEPA Method 6010 on August 19, 1993. The sample was digested on August 24, 1993 and analyzed for metals by inductively coupled plasma atomic emission spectroscopy (ICP) on August 25, 1993.

The ICF site identification number and corresponding Commercial Testing & Engineering Co. laboratory sample identification number are listed below.

ICF Site No.

Lab Sample No.

BTR-SD08-SD01

4178-3

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 6010.

### II. VALIDITY and COMMENTS:

## A. <u>Technical Holding Times</u>:

 $A.1\,$  Technical holding time QC criteria were met for all project sample analyses.

## B. <u>Initial Calibration</u>:

B.1 Initial calibration QC criteria were met for all project sample analyses.

#### C. Continuing Calibrations:

C.1 Continuing calibration QC criteria were met for all project sample analyses.

### D. Blank Analyses:

D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

### E. ICP Interference Check Sample (ICS) Analyses:

E.1 The spike recovery for the indicated target analyte exceeded the established QC limits for the interference check sample (ICS) analysis performed on August 25, 1993 as follows:

<u>Analyte</u>	Recovery	QC limits
Zinc	139%	80-120%

The ICS recovery for zinc exceeded the upper QC limit of 120%, indicating possible high bias. Therefore, the result for zinc in the associated sample is considered an estimate (J) (see modified sample data sheet).

E.2 The results for all other ICS analyses met applicable QC criteria.

#### F. Laboratory Control Sample Analyses:

F.1 All laboratory control sample QC criteria were met.

## G. <u>Laboratory Replicate Analysis</u>:

G.1 There were no laboratory replicate analyses included in the project documentation.

## H. Field Duplicate Analysis:

H.1 There were no field duplicate analyses included in the project documentation.

#### I. Matrix Spike Analysis:

I.1 Sample number BTR-SD08-SD01 was utilized for the matrix spike (MS) analyses. The spike recoveries for magnesium and manganese are 143% and 60%, respectively, falling outside the advisory QC criteria of 75-125%. Due to the above noted deficiency in MS analysis, the detected results for magnesium and manganese in the project sample are considered as estimates (J) and usable for limited purposes only (see modified sample data sheet). A post-digestion spike recovery analysis was performed on August 25, 1993 and the recovery results for all re-analyses met

applicable QC criteria.

The MS recoveries for aluminum, calcium and iron did not meet the advisory QC criteria of 75-125%. However, the sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of these high MS recoveries.

- I.2 All other QC criteria were met for the MS analysis.
- J. <u>Quantitation and Identification</u>:
   J.1 No problems were observed with analyte quantitation and identification in project sample analyses.
- K. <u>Conclusion</u>:
  K.1 Due to the above noted performance deficiency in the interference check sample and matrix spike analyses, select data are considered estimates and usable for limited purposes only. All other data are considered valid and usable for all purposes.

ICF KAISER ENGINEERS. INC. 1800 HARRISON STREET OAKLAND, CALIFORNIA 94612-3430 510/419-6000

#### DATA VALIDATION REPORT (Revised)

PROGRAM:

DEW-Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Sharon Lin, ICF Kaiser Engineers

ANALYSIS:

Total Metals by USEPA Method 6010 & Thallium by USEPA Method 7841

MATRIX:

Soil and Water

DATE:

January 21, 1994 (Revision February 2, 1994)

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received one (1) water and two (2) soil samples for total metals analyses by USEPA Methods 6010 and 7841 on August 20 and 24, 1993. The samples were digested on August 24 and 28, 1993 and analyzed for total metals by inductively coupled plasma atomic emission spectroscopy (ICP) and for thallium by atomic absorption furnace technique (GFAA) on August 25 and 30, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>	
BTR-SS13-SD01	4212-2	Soil	
BTR-SS13-S02	4212-5	Soil	
BTR-EB04	4302-10	Water	

Sample number BTR-EB04 was designated as an equipment blank.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989, USEPA Method 6010 and USEPA Method 7841, and the Project Sampling and Analysis Plan.

## II. VALIDITY and COMMENTS:

A. <u>Technical Holding Times</u>:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. <u>Initial Calibration</u>:

B.1 Initial calibration QC criteria were met for project sample analyses.

C. <u>Continuing Calibrations</u>:

 ${\tt C.1}$  Continuing calibration QC criteria were met for all project sample analyses.

D. <u>Laboratory Blank Analyses:</u>

D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:

E.1 No target analyte was detected in equipment blank BTR-EB04 at a concentration above the PQL and the results are considered acceptable.

F. Field Duplicate Analysis:

F.1 There were no field duplicate analyses included in the project documentation.

G. <u>Laboratory Replicate Analysis</u>:

G.1 There were no laboratory replicate analyses included in the project documentation.

H. ICP Interference Check Sample (ICS) Analyses:

H.1 All applicable QC criteria were met for the ICS analyses.

I. <u>Laboratory Control Sample Analyses:</u>

I.1 All laboratory control sample analyses associated with project samples met applicable QC criteria and the results are considered acceptable.

J. <u>Matrix Spike Analysis:</u>

J.1 Sample number BTR-SS13-S02 was utilized for the matrix spike (MS) analysis. The spike recoveries for aluminum and iron fell outside of the advisory QC criteria of 75-125%. However, the sample concentration exceeds the spike concentration by a factor of four or more for the above noted analytes. Therefore, data are not qualified on the basis of these high MS recoveries.

J.2 All other applicable QC criteria were met for the matrix spike analyses.

- $\begin{array}{cccc} \text{L.} & & \underline{\text{Conclusion}} \colon \\ & \text{L.1} & \text{All data are considered valid and usable for all purposes.} \end{array}$

ICF KAISER ENGINEERS. INC. 1800 HARRISON STREET OAKLAND, CALIFORNIA 94612-3430 510/419-6000

#### DATA VALIDATION REPORT (Revised)

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: Traci Grizzle, ICF Kaiser Engineers

ANALYSIS: Total and Dissolved Metals by USEPA Method 6010

MATRIX: Soil and Water

DATE: January 4, 1994 (Revision February 2, 1994)

### I. <u>INTRODUCTION</u>:

Commercial Testing & Engineering Co. (Anchorage, AK) received three (3) soil samples for total metals analyses and one (1) water sample for total and dissolved metals analyses by USEPA Method 6010 on August 24, 1993. The samples were digested on August 27, 1993 and analyzed for metals by inductively coupled plasma atomic emission spectroscopy (ICP) on August 29 and August 30, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>
BTR-SS14-S04	4301-7
BTR-SS14-SDO1	4301-4
BTR-SS14-SW01	4301-1
BTR-AOC10-S04	4301 - 8
BTR-SS14-SW01 (F)	4301-1

Sample number BTR-SS14-SW01 (F) was a field-filtered sample and analyzed for dissolved metals on August 30, 1993.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 6010.

## II. VALIDITY and COMMENTS:

- A. Technical Holding Times:
  - A.1 Technical holding time QC criteria were met for all project sample analyses.
- B. <u>Initial Calibration</u>:
  - B.1 Initial calibration QC criteria were met for all project sample analyses.
- C. <u>Continuing Calibrations</u>:
  - C.1 The percent recovery for silver in the continuing calibration performed on August 29, 1993 was below the QC criteria. Therefore, the results for silver in the following associated samples are considered estimates (UJ) (see modified sample data sheets):
  - Sample numbers BTR-SS14-SD01, BTR-SS14-S04 and BTR-AOC10-S04.
  - C.2 All other continuing calibration QC criteria were met for all project sample analyses.
- D. <u>Blank Analyses:</u>
  - D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.
- E. ICP Interference Check Sample (ICS) Analyses:
  - E.1 The ICS analyses met all applicable QC criteria.
- F. Laboratory Control Sample Analyses:
  - F.1 All laboratory control sample QC criteria were met.
- G. Laboratory Replicate Analysis:
  - G.1 QC limits for precision of  $\leq 20\%$  for water samples and  $\leq 35\%$  for soil samples, as measured by the Relative Percent Difference (RPD) between sample results, were specified for laboratory replicate comparability.

Water sample BTR-SS14-SW01 and soil sample BTR-SS14-SD01 were utilized for the laboratory replicate analyses.

The laboratory replicate analyses for sample number BTR-SS14-SW01 met all applicable QC criteria.

G.2 The results of the laboratory replicate analyses for sample number BTR-SS14-SD01 for the indicated target analytes exceeded the established QC limits as follows:

Analyte	RPD
Calcium	96%
Chromium	38%
Magnesium	200%
Manganese	41%

The RPDs for analytes calcium and magnesium substantially exceeded the QC limit of  $\leq 35\%$ . The inconsistency of the results in the analysis of the laboratory replicate may be due to sample non-homogeneity. Due to the above noted deviations, the reported results for the above noted analytes are considered estimates (J) (see modified sample data sheets) for the following associated samples:

- Sample numbers BTR-SS14-SD01, BTR-SS14-S04 and BTR-AOC10-S04.
- G.3 All other QC criteria for the above laboratory replicate analyses were met.

## H. <u>Field Duplicate Analysis</u>:

H.1 There were no field duplicate analyses included in the project documentation.

## I. Matrix Spike Analysis:

I.1 Project sample numbers BTR-SS14-SD01 and BTR-SS14-SW01 (F) were utilized for the associated matrix spike (MS) analyses. The spike recovery for lead was 63% for sample BTR-SS14-SD01-MS, falling below the lower QC limit of 75%. Due to the above noted low MS recovery, the detected and non-detected results for lead in all samples are considered as estimates (J) and usable for limited purposes only (see modified sample data sheets). A post-digestion spike recovery analysis was performed on August 29, 1993 and the result was within the advisory QC limits of 75-125%.

The MS recoveries for aluminum, calcium and iron exceeded the upper QC limit of 125%. However, since the sample concentrations exceeded the spike concentrations by a factor of four or more for the above noted target analytes, associated sample data were not qualified on the basis of these high MS recoveries.

I.2 All other QC criteria were met for project MS analyses.

## J. Quantitation:

J.1 No problems were observed with analyte quantitation in project sample analyses.

### K. Conclusion:

K.1 Due to the above noted performance deficiencies in the continuing calibration, laboratory replicate and matrix spike analyses, select data are considered estimates and usable for

limited purposes only. All other data are considered valid and usable for all purposes.

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#### **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Cynthia E. Schlag

ANALYSIS:

Extractable Petroleum Hydrocarbons by USEPA Method 8100M

**MATRIX:** 

Soil

DATE:

January 21, 1994

### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received two (2) soil samples for Extractable Petroleum Hydrocarbons (EPH) analysis by USEPA Method 8100M (modified) on August 16 and 18, 1993. The samples were extracted on August 20 and 21, 1993 and analyzed for EPH by gas chromatography with flame ionization detection on August 21 and 26, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.

Lab Sample No.

BTR-SD08-SD01

93.4198-08

BTR-LF03-SD07

93.4219-10

There were no QC sample designations included in project documentation.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8100M and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

#### A. <u>Technical Holding Times:</u>

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. Initial Calibration:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibrations:

C.1 All QC criteria for continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable

E. Field Blanks:

E.1 The target analyte was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

F. Laboratory Control Sample Analysis:

F.1 The laboratory control sample QC criteria were met for all blank spike analyses and the results are considered acceptable.

G. Field Duplicate Analysis:

G.1 No field duplicate analysis is included in the project documentation.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

- I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with sample BTR-SD08-SD01 exceeded the QC criteria. This is probably attributable to the high concentration of native EPH detected in the sample. This is not expected to have an adverse effect on the detected amount of EPH in the samples.
- I.2 All other QC criteria were met for MS and MSD analyses associated with all other samples.

J. Quantitation and Identification:

- J.1 The chromatographic pattern of sample BTR-LF03-SD07 is not consistent with the chomatographic pattern of middle distillate fuel (diesel fuel). It is the opinion of the reviewer that the peaks are due to higher molecular weight hydrocarbons. Therefore, the detected results for EPH in these samples are estimated (J) and are usable for limited purposes (see modified sample data sheets).
- J.2 No other problems were observed with sample quantitation and identification.

K. Conclusion:

- K.1 Due to the inconsistency of the chromatographic pattern of sample BTR-LF03-SD07 with the diesel fuel standard, the detected result in this sample is considered as estimated and usable for limited purposes.
- K.2 The data for all other samples are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Keith Strout

ANALYSIS:

Extractable Petroleum Hydrocarbons by USEPA Method 8100M

MATRIX:

Water & Soil

DATE:

January 19, 1994

## I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received four (4) water samples and four (4) soil samples for Extractable Petroleum Hydrocarbons (EPH) analysis by USEPA Method 8100M (modified) on August 19 and 20, 1993. The samples were analyzed for EPH on August 21 through 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-SD08-SEB	93.4203-08	Water
BTR-BKGD-S02	93.4203-06	Soil
BTR-BKGD-SD01	93.4199-01	Soil
BTR-BKGD-SW01	93.4199-06	Water
BTR-SS13-S02	93.4216-10	Soil
BTR-SS13-SD01	93.4216-05	Soil
BTR-SS13-SEB2	93.4215-06	Water
BTR-SS13-WEB2	93.4215-07	Water

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-SEB, BTR-SS13-SEB2, and BTR-SS13-WEB2 were designated as "equipment blanks."

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8100M and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

## A. <u>Technical Holding Times:</u>

A.1 Technical holding time QC criteria were met for all project sample analyses.

#### B. Initial Calibration:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

## C. <u>Continuing Calibrations:</u>

C.1 All QC criteria for continuing calibration were met and the results are considered acceptable.

## D. Laboratory Blanks:

D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQE) and the results are considered acceptable

#### E. Field Blanks:

E.1 The target analyte was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.

## F. <u>Laboratory Control Sample Analysis:</u>

F.1 The laboratory control sample QC criteria were met for all blank spike analyses and the results are considered acceptable.

#### G. Field Duplicate Analysis:

G.1 No field duplicate analysis is included in the project documentation.

### H. Surrogate Recoveries:

H.1 The surrogate recoveries in the matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with samples BTR-SS13-S02 and BTR-SS13-SD01 could not be determined because of the dilution required due to the high concentration of EPH in the sample. This is not expected to have an adverse effect on the detected amount of EPH in the samples.

H.2 All other surrogate recoveries met applicable QC criteria and the results are considered acceptable.

#### I. Matrix Spike/Matrix Spike Duplicate Analyses:

- I.1 The MS and MSD analyses associated with samples BTR-SS13-S02 and BTR-SS13-SD01 exceeded the QC criteria. This is probably due to the high concentration of native EPH detected in the sample. This is not expected to have an adverse effect on the detected amount of EPH in the samples.
- I.2 All other QC criteria were met for matrix spike and matrix spike duplicate analyses associated with all other samples.

## J. Quantitation and Identification:

- J.1 The chromatographic pattern of samples BTR-BKGD-SD01, BTR-BKGD-S02, BTR-SS13-S02, and BTR-SS13-SD01 is not consistent with the chomatographic pattern of middle distillate fuel (diesel fuel). It is the opinion of the reviewer that the peaks are due to higher molecular weight hydrocarbons. Therefore, the detected results for EPH in these samples are estimated (J) and are usable for limited purposes (see modified sample data sheets).
- J.2 No other problems were observed with sample quantitation and identification of the samples.

## K. <u>Conclusion:</u>

- K.1 Due to the inconsistency of the chromatographic pattern of samples BTR-BKGD-SD01, BTR-BKGD-S02, BTR-SS13-S02, and BTR-SS13-SD01 with the diesel fuel standard, the detected results in these samples are considered as estimated and usable for limited purposes.
- K.2 The data for all other samples are considered valid and usable for all purposes.

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## **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Keith Strout

ANALYSIS:

Halogenated Volatile Organic Compounds by USEPA Method 8010

MATRIX:

Water & Soil

DATE:

January 19, 1994

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples and three (3) soil samples for Halogenated Volatile Organic Compound (HVOC) analysis by USEPA Method 8010 on August 19 and August 20, 1993. The samples were analyzed for HVOCs on August 20, 1993, through August 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-BKGD-SD01	93.4199-01	SOIL
BTR-BKGD-SW01	93.4199-06	WATER
BTR-SD08-TB02	93.4199-13	WATER
BTR-BKGD-S02	93.4203-06	SOIL
BTR-SD08-SEB	93.4203-08	WATER
BTR-SS13-S02	93.4216-10	SOIL

The following QC sample designation were included in project documentation: sample number BTR-SD08-SEB was designated as an "equipment blank" and sample number BTR-SD08-TB02 was designated as a "trip blank."

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8010. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8010 and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

### A. Technical Holding Times:

A.1 The technical holding time QC criteria were met for all project samples.

#### B. Initial Calibration:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

## C. <u>Continuing Calibration:</u>

C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

### D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

## E. Field Blanks:

E.1 Target analyte 1,2-dichloroethane was detected in soil equipment blank BTR-SD08-SEB at a concentration of 0.0025 mg/L. This compound was not detected in the laboratory blank or in the associated soil sample. Since the soil PQL is fifty times greater than the water PQL for this analyte, the PQL for the associated soil sample has not been qualified.

## F. Field Duplicate Analysis:

F.1 No field duplicate analysis in included in the project documentation.

#### G. Surrogate Recoveries:

G.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

## H. Matrix Spike/Matrix Spike Duplicate Analyses:

H.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses met all QC criteria and are considered acceptable.

#### I. Internal Standards:

I.1 Internal standard areas for all sample analysis were within specified QC criteria and the results are considered acceptable.

#### J. Quantitation & Identification:

J.1 No problems were observed with sample quantitation and identification in project sample analysis.

#### K. Conclusion:

K.1 All data are considered valid and usable for all purposes.

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#### **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Cynthia E. Schlag

ANALYSIS:

Halogenated Volatile Organic Compounds by USEPA Method 8010

MATRIX:

Soil

DATE:

I.

January 21, 1994

#### INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received one (1) soil sample for Halogenated Volatile Organic Compound (HVOC) analysis by USEPA Method 8010 on August 18, 1993. The samples were analyzed for HVOCs by gas chromatography with electrolytic conductivity detection (HECD) on August 23 and 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.

Lab Sample No.

BTR-LF03-SD07

93.4219-10

There were no QC sample designations included in project documentation.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8010. According to the laboratory, all soil samples were extracted in methanol before analysis as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8010 and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

- A. Technical Holding Times:
  - A.1 The technical holding time QC criteria were met for all project samples.
- B. Initial Calibration:
  - B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.
- C. Continuing Calibration:
  - C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.
- D. Laboratory Blanks:
  - D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.
- E. Field Blanks:
  - E.1 No field blank analysis is included in the project documentation.
- F. Field Duplicate Analysis:
  - F.1 No field duplicate analysis is included in the project documentation.
- G. Surrogate Recoveries:
  - G.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.
- H. Matrix Spike/Matrix Spike Duplicate Analyses:
  - H.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses met all QC criteria and are considered acceptable.
- Internal Standards:
  - I.1 Internal standard areas for all sample analysis were within specified QC criteria and the results are considered acceptable.
- J. Quantitation & Identification:
  - J.1 No problems were observed with sample quantitation and identification in project sample analysis.
- K. Conclusion:
  - K.1 All data are considered valid and usable for all purposes.

ICF KAISER ENGINEERS, INC. 1800 HARRISON STREET P.O. Box 23210 OAKLAND, CALIFORNIA 94612-3430 510/419-6000 FAX 510/419-5355

#### **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Keith Strout

ANALYSIS:

Volatile Organic Compounds by USEPA Method 8260

MATRIX: DATE:

1.

Water & Soil January 20, 1994

## **INTRODUCTION:**

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received ten (10) water samples and three (3) soil samples for Volatile Organic Compound (VOC) analysis by USEPA Method 8260 on August 19, 1993 through August 24,1993. The samples were analyzed for VOCs on August 20, 1993, through September 5, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-SD08-AB	93.4173-09	WATER
BTR-SD08-TB01	93.4173-10	WATER
BTR-A0C10-SW01	93.4303-06	WATER
BTR-LF01-S01	93.4303-02	SOIL
BTR-AB-02	93.4303-01	WATER
BTR-EB-05	93.4303-05	WATER
BTR-SS13-SEB2	93.4213-04	WATER
BTR-LF03-SD07	93.4213-03	SOIL
BTR-LF03-TB	93.4211-02	WATER
BTR-SS13-WEB	93.4211-01	WATER
BTR-BKGD-S02	93.4175-02	SOIL
BTR-SD08-SEB	93.4175-03	WATER
BTR-LF01-SW03	93.4285-02	WATER

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-AB and BTR-AB-02 were designated as "ambient blanks;" sample numbers BTR-SD08-TB01 and BTR-LF03-TB were designated as "trip blanks;" and BTR-EB-05, BTR-SS13-SEB2, BTR-SS13-WEB and BTR-SD08-SEB were designated as "equipment blanks."

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8260. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opionion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed on Table 1B.

This report was prepared in accordance with the USEOA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8260 and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

### A. Technical Holding Times:

A.1 Sample BTR-LF01-S01 was collected on August 21, 1993 and analyzed on September 5, 1993. The technical holding time QC criteria of 14 days was exceeded by 1 day. Therefore the practical quantitation limits for this sample are qualified as estimated (J) and are considered usable for limited purposes.

A.2 The technical holding time QC criteria were met for all other project samples.

### B. Instrument Tuning:

B.1 All QC criteria for the bromofluorobenzene (BFB) tunes were met and the results are considered acceptable.

### C. Initial Calibration:

C.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

## D. Continuing Calibration:

D.1 All QC criteria for the continuing calibrations were met and the results are considered acceptable.

#### E. Laboratory Blanks:

E.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

## F. Field Blanks:

F.1 Target compounds were detected in the equipment and ambient blanks as listed below (mg/L).

Field Blank	Compound#1*	Compound#2	Compound#3
BTR-SD08-AB	0.011	0.0019	0.0016
BTR-AB-02	0.0058	0.0022	0.0063
BTR-EB-05	0.0029	0.0023	0.0032
BTR-SS13-SEB	2 0.0024		0.0022
BTR-SS13-WEE	3 0. <b>00</b> 36	0.0033	
BTR-SD08-SEB	1		0.0044

* Compound #1 = methylene chloride

Compound #2 = toluene

Compound #3 = 1,2-dichloroethane

Due to field blank contamination, the results reported for the following analytes are considered nondetected (U) (see sample data sheets):

- Chloromethane in sample number BTR-AOC10-SW01
- 1,2-Dichloroethane in sample number BTR-AOC10-SW01

### G. Laboratory Control Sample Analyses:

G.1 Laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

## H. Field Duplicate Analysis:

H.1 No field duplicate analyses were included with the project documentation.

### I. Surrogate Recoveries:

I.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

## J. <u>Matrix Spike/Matrix Spike Duplicate Analyses:</u>

J.1 The recovery of 1,1-dichloroethene in the matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with samples BTR-BKGD-S02, BTR-A0C10-SW01, BTR-LF01-S01, BTR-AB-02, BTR-EB-05 and BTR-LF03-SD07 exceeded the applicable QC criteria.

According to USEPA validation guidelines, organic data are not qualified based on low MS recoveries alone. It is the opinion of the reviewer that the quality of the data is not affected.

J.2 The MS and MSD analyses associated with all other samples met all applicable QC criteria and are considered acceptable.

### K. System Performance:

- K.1 Samples BTR-SD08-SEB, BTR-SS13-SEB2 and BTR-LF03-SD07 were analyzed more than 12 hours after the instrument tune as verified by data submitted with the samples. Therefore, the detected and nondetected results for samples BTR-LF03-TB, BTR-SS13-WEB and BTR-LF01-SW03 are considered estimated (J) (see modified sample data sheets). It is not known what effect this method noncompliance will have on the quality of the data.
- K.2 No other problems with system performance were observed for project sample analyses.

## L. Quantitation & Identification:

- L.1 Sample BTR-LF03-SD07 required dilution in order to quantitate target compound tetrachloroethene within the linear range of the system.
- L.2 No problems were observed with sample quantitation and identification.

## M. Conclusion:

- M.1 Due to 12 hour sample analysis time criteria and technical holding time QC criteria being exceeded, select data are considered as estimated and usable for limited purposes.
- M.2 Due to field blank contamination, select data are considered as nondetected and estimated and usable for limited purposes.
- M.3 All other data are considered valid and usable for all purposes.

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#### **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Cynthia Schlag, ICF Kaiser Engineers

ANALYSIS:

Volatile Organic Compounds by USEPA Method 8260

MATRIX: DATE: Water and Soil January 20, 1994

## I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received thirteen (13) soils and ten (10) water samples for volatile organic compounds (VOC) analyses by USEPA Method 8260 on August 16, 17, 18, 20, 21, and September 2 and 3, 1993. The samples were analyzed for VOCs by gas chromatography/mass spectrometry (GC/MS) on August 20, 21, 28 and September 1, 2, 6, 7, 9, 15, 23, 28, 29, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-SS14-SW01	93.4301-01	Soil
BTR-SS14-SD01	93.4301-04	Soil
BTR-SS14-S04	93.4301-07	Soil
BTR-AOC10-S04	93.4301-08	Soil
BTR-AOC14-SD01	93.4305-01	Soil
BTR-AOC14-S02	93.4305-06	Soil
BTR-AOC14-SW01	93.4305-07	Water
BTR-SD08-WEB	93.4179-01	Water
BTR-BKGD-SW01	93.4179-02	Water
BTR-BKGD-SD01	93.4179-04	Soil
BTR-SD08-TB	93.4179-05	Water
BTR-SD08-SD01	93.4178-03	Soil
BTR-SS13-S02	93.4212-05	Soil
BTR-AOC9-2S11-1.5	93.4616-06	Soil
BTR-EB-07	93.4616-09	Water
BTR-SS13-2S05	93.4616-10	Soil
BTR-EB-08	93.4616-13	Water
BTR-LF04-2SW03	93.4616-14	Water
BTR-LF04-2SD04	93.4616-16	Soil

BTR-AOC08-S04	93.4302-04	Soil
BTR-AOC09-SW01	93.4302-08	Water
BTR-TB-04	93.4302-04	Water
BTR-EB-04	93.4302-04	Water

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-TB and BTR-TB-04 were designated as "trip blanks;" and sample numbers BTR-EB-04, BTR-EB-07, BTR-EB-08, and BTR-SD08-WEB were designated as "equipment blanks."

Soil sample results and quantitation limits were reported by the laboratory with an adjustment for moisture content.

Laboratory sample numbers were referenced to identify some matrix spike (MS) and matrix spike duplicate (MSD) samples in comment K.1. because the laboratory reports for these samples were not provided. The corresponding ICF sample numbers could not be determined for reference.

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8260. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA SW-846 Method 8260, and the Project Sampling and Analysis Plan.

#### II. VALIDITY and COMMENTS:

- A. <u>Technical Holding Times</u>:
  - A.1 Sample numbers BTR-TB-05 and BTR-SS14-SW01 exceeded technical holding time criteria of 14 days. Therefore, the laboratory did not analyze the samples.
  - A.2 Technical holding time QC criteria were met for all other project sample analyses.
- B. GC/MS Instrument Performance Check:
  - B.1 All QC criteria for the bromofluorobenzene (BFB) tunes were met and the results are considered acceptable.
- C. <u>Initial Calibration</u>:
  - C.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

D. Continuing Calibration:

D.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

E. Laboratory Blanks:

E.1 No target analytes were detected in the method blank at concentrations above the Practical Quantitation Limits (PQL) and the results are considered acceptable.

F. Surrogate Recoveries:

F.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

G. Field Blanks:

G.1 The following target analytes were detected in the equipment blanks listed below at concentrations above the PQL:

Sample No.	<u>Analyte</u>	Concentration
BTR-EB-04	Methylene chloride	0.0060 mg/L
BTR-EB-04	Toluene	0.0023 mg/L
BTR-EB-04	1,2-Dichloroethane	0. <b>0015</b> mg/L
BTR-EB-07	Methylene chloride	0.0083 mg/L
BTR-EB-07	Toluene	0.0017 mg/L
BTR-EB-08	Methylene chloride	0. <b>0066</b> mg/L
BTR-EB-08	Toluene	0.0013 mg/L
BTR-SD08-WEB	Methylene chloride	0. <b>0013 mg/L</b>
BTR-SD08-WEB	1,2-Dichloroethane	0.0030 mg/L

Due to equipment blank contamination, the results reported for the following analytes are considered nondetected (U) (see sample data sheets):

- Toluene in sample number BTR-AOC9-2S11-1.5
- 1,2-Dichloroethane in sample numbers BTR-AOC09-SW01 and BTR-BKGD-SW01
- G.2 No other target analytes were detected in the field blanks at concentrations above the PQL and the results are considered acceptable.
- H. <u>Laboratory Control Sample Analysis</u>:
  - H.1 Laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.
- I. <u>Laboratory Replicate Analysis:</u>
  - 1.1 No laboratory replicate analysis was included with the project documentation.
- J. Field Duplicate Analysis:
  - J.1 No field duplicate analyses were included with the project documentation.

K. <u>Matrix Spike/Matrix Spike Duplicate Analysis</u>:

K.1 The recoveries of 1,1-Dichloroethane in the matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with all the soil samples did not meet the laboratory established QC limits as noted below.

Sample No.	% Recovery	QC Limits
BTR-AOC10-S04 MS	16	80-120%
BTR-AOC10-S04 MSD	16	80-120%
BTR-AOC14-SD01 MS	64	80-120%
BTR-AOC14-SD01 MSD	66	80-120%
93.4173-07	20	80-120%
93.4173-11	18	80-120%
93.4173-07	20	80-120%
93.4173-08	18	80-120%
93.4209-02	16	80-120%
93.4209-03	19 ~	80-120%
93.4514-03	64	80-120%
93.4514-04	68	80-120%
93.4483-11	57	80-120%
93.4483-12	58	80-120%

According to USEPA data validation guidelines, organic data are not qualified based on MS/MSD QC outliers alone. It is the opinion of the reviewer that the low recoveries in these samples are due to sample matrix interferences, and the affect on the quality of the data is not known.

### L. Internal Standards:

L.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

#### M. Quantitation and Identification:

M.1 No problems were observed with analyte quantitation and identification in project sample analyses.

#### N. Conclusion:

N.1 Due to equipment blank contamination, select data are considered nondetected. All other data are considered valid and usable for all purposes.

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#### **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No. 41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

**REVIEWER:** 

Cynthia Schlag, ICF Kaiser Engineers

ANALYSIS:

Volatile Organic Compounds by USEPA Method 8260

MATRIX: DATE:

Water and Soil January 26, 1994

#### ١. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received one (1) soil and one (1) water sample for volatile organic compound (VOC) analyses by USEPA Method 8260 on August 20, 1993. The samples were analyzed for VOCs by gas chromatography/mass spectrometry (GC/MS) on August 30 and September 6, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>	Matrix
BTR-LF04-SW01	93.4286-01	Water
BTR-LF04-SD01	93.4286-03	Soil

There were no QC sample designations included in project documentation.

Soil sample results and quantitation limits were reported by the laboratory with an adjustment for moisture content.

It should be noted that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8260. According to the laboratory, all soil samples were extracted in methanol before analysis as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA SW-846 Method 8260, and the Project Sampling and Analysis Plan.

## II. VALIDITY and COMMENTS:

A. Technical Holding Times:

A.1 Technical holding time QC criteria were met for all project sample analyses.

B. GC/MS Instrument Performance Check:

B.1 All QC criteria for the bromofluorobenzene (BFB) tunes were met and the results are considered acceptable.

C. Initial Calibration:

C.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

D. Continuing Calibration:

D.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

E. Laboratory Blanks:

E.1 No target analytes were detected in the method blank at concentrations above the Practical Quantitation Limits (PQL) and the results are considered acceptable.

F. Surrogate Recoveries:

F.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

G. Field Blanks:

G.1 No target analytes were detected in the field blanks at concentrations above the PQL and the results are considered acceptable.

H. Laboratory Control Sample Analysis:

H.1 Laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

I. Laboratory Replicate Analysis:

No laboratory replicate analysis was included with the project documentation.

J. Field Duplicate Analysis:

J.1 No field duplicate analyses were included with the project documentation.

## K. <u>Matrix Spike/Matrix Spike Duplicate Analysis</u>:

K.1 The recoveries of 1,1-Dichloroethene and Trichloroethene in the matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with the soil sample did not meet the laboratory established QC limits as noted below.

Compound	% Recovery	QC Limits
1,1-Dichloroethene	18	80-120%
1,1-Dichloroethene	16	80-120%
Trichloroethene	78	80-120%
Trichloroethene	78	80-120%

According to USEPA data validation guidelines, organic data are not qualified based on MS/MSD QC outliers alone. Based on the acceptable recoveries of the laboratory control sample analysis, it is the opinion of the reviewer that the low recoveries in these samples are due to sample matrix interferences, and the affect on the quality of the data cannot be determined.

### L. Internal Standards:

L.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

## M. Quantitation and Identification:

M.1 No problems were observed with analyte quantitation and identification in project sample analyses.

#### N. Conclusion:

N.1 All data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT (Revised)

PROGRAM: Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: Timothy Vonnahme

ANALYSIS: Total Metals & Dissolved Metals by USEPA Method 6010 and

USEPA Method 7841 (Thallium)

MATRIX: Water

DATE: November 19, 1993 (Revision February 2, 1994)

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received three (3) water samples for total metals and dissolved metals analyses by USEPA Method 6010 and USEPA Method 7814 on August 20 through 24, 1993. The samples were digested on August 25 and 28, 1993, and analyzed for total and dissolved metals by inductively coupled plasma atomic emission spectrometry (ICP) and for thallium by atomic absorption furnace technique (GFAA) on August 26 and 30, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab. Sample No.	<u>Matrix</u>
BTR-AOC10-SW01	93.4303-06	Water
BTR-LF01-SWO3	93.4285-02	Water
BTR-SS13-WEB2	93.4211-01	Water
BTR-AOC10-SW01 (F)	93.4303-06	Water
BTR-LF01-SW03 (F)	93.4285-02	Water
BTR-SS13-WEB2 (F)	93.4211-01	Water

Sample numbers BTR-AOC10-SW01(F), BTR-LF01-SW03(F) and BTR-SS13-WEB2(F) were field-filtered samples and analyzed for dissolved metals on August 26 and 30, 1993.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B.

This report was prepared in accordance with the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989, and USEPA SW-846 Method 6010 and Method 7841, and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

- A. <u>Technical Holding Times:</u>
  - A.1 Technical holding time QC criteria were met for all project sample analyses.
- B. <u>Initial Calibration</u>:
  - B.1 Initial calibration QC criteria were met for all project sample analyses.
- C. Continuing Calibration:
  - C.1 Continuing calibration QC criteria were met for all project sample analyses.
- D. <u>Laboratory Blanks:</u>
  - D.1 The target analytes were not detected in the calibration blanks at a concentration above the Practical Quantitation Limit (PQL) and the results are considered acceptable.
  - D.2 Calcium in the method blank associated with sample number BTR-LF01-SW03 was detected at a concentration of 0.378 mg/L, exceeding the QC criteria of 0.200 mg/L. However, since the associated sample number BTR-LF01-SW03 contained calcium at a concentration of 130 mg/L (greater than 10X the PQL), no data are qualified.
  - D.3 No other target analytes were detected in the above method blank.
  - D.4 No target analytes were detected at concentrations above the PQLs in the method blanks associated with sample numbers BTR-AOC10-SW01 and BTR-SS13-WEB2 and the results are considered acceptable.
- E. Field Blanks:
  - E.1 Target analytes were not detected in the equipment blank at a concentration above the PQL and the results are considered acceptable.
- F. Field Duplicate Analysis:
  - F.1 There were no field duplicate analyses included in the project documentation associated with project sample analyses.
- G. <u>Laboratory Replicate Analysis:</u>
  - G.1 The sample duplicate analyses associated with these samples met all QC criteria for precision as measured by Relative Percent Difference (RPD) and the results are considered acceptable.

H. ICS Interference Check Sample (ICS) Analysis:H.1 The ICS analyses met all applicable QC criteria.

### I. <u>Laboratory Control Sample Analysis:</u>

- I.1 A percent recovery of 116% was obtained for calcium in the laboratory control sample analysis associated with sample number BTR-AOC10-SW01. The percent recovery marginally exceeded the QC criteria of 90-110% for accuracy, therefore the result reported for calcium in the above noted sample is considered acceptable.
- I.2 Percent recoveries of 117% and 89% were obtained for calcium and potassium, respectively, in the laboratory control sample analyses associated with sample number BTR-LF01-SW03. The above noted percent recoveries were marginally outside the QC criteria of 90-110% for accuracy, therefore the result reported for calcium in the above noted sample is considered acceptable.
- I.3 All other analytes in the above laboratory control sample analyses, and all other laboratory control sample analyses associated with project samples met all applicable QC criteria and the results are considered acceptable.

## J. Matrix Spike Analysis:

J.1 The matrix spike (MS) recoveries for the indicated target analytes were outside the established QC limits of 75-125% for the project MS analyses as follows:

Sample	<u>Analyte</u>	Recovery
BTR-AOC10-SW01	Sodium	-110%
BTR-AOC10-SW01 (F)	Sodium	-165%
BTR-AOC10-SW01	Magnesium	70%
BTR-AOC10-SW01 (F)	Magnesium	68%
BTR-LF01-SW03 (F)	Calcium	58%
BTR-LF01-SW03 (F)	Sodium	3%
BTR-SS13-WEB2	Thallium	58%
BTR-SS13-WEB2 (F)	Thallium	59%
BTR-SS13-WEB2	Sodium	1466%

The sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of the deviations in MS recoveries. Post-digestion spike recovery analyses were performed on August 26 and 30, 1993 and the percent recoveries for all post-digestion spike analyses met applicable QC criteria.

J.2 All remaining analytes in the above noted matrix spike analyses, and all other matrix spike analyses associated with project samples met applicable QC criteria and the results are considered acceptable.

- Κ. Quantitation:
  - No problems were encountered with sample quantitation in project sample analyses.
- L.
- Conclusion: L.1 All da All data are considered valid and usable for all purposes.

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## DATA VALIDATION REPORT (Revised)

PROGRAM:

DEW-Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Traci Grizzle, ICF Kaiser Engineers

ANALYSIS:

Total Metals by USEPA Method 6010

MATRIX:

Soil

DATE:

January 4, 1994 (Revision February 2, 1994)

## INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received two (2) soil samples for total metals analyses by USEPA Method 6010 on August 19, 1993. The samples were digested on August 27, 1993 and analyzed for metals by inductively coupled plasma atomic emission spectroscopy (ICP) on August 29, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. laboratory sample identification numbers are listed below.

ICF Site No.	<u>Lab Sample No.</u>
BTR-AOC14-S02	4305-6
BTR-AOC14-SDO1	4305 - 1

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 6010.

## II. VALIDITY and COMMENTS:

#### Technical Holding Times:

Technical holding time QC criteria were met for all project sample analyses.

## B. Initial Calibration:

- B.1 The recovery for silver was marginally below the QC criteria. This slight discrepancy is not expected to affect data quality.
- B.2 All other initial calibration QC criteria were met for all project sample analyses.

## C. Continuing Calibrations:

C.1 Continuing calibration QC criteria were met for all project sample analyses.

## D. <u>Blank Analyses:</u>

- D.1 No target analytes were detected in the method and calibration blanks (initial and continuing calibration blanks) above the practical quantitation limit (PQL) and the results are considered acceptable.
- E. <u>ICP Interference Check Sample (ICS) Analyses:</u>
  E.1 The ICS analyses met all applicable QC criteria.
- F. <u>Laboratory Control Sample Analyses:</u>
  - F.1 All laboratory control sample QC criteria were met.

## G. <u>Laboratory Replicate Analysis</u>:

G.1 A QC limit for precision of  $\leq 35\%$ , as measured by the Relative Percent Difference (RPD) between sample results, was specified for laboratory replicate comparability.

Sample number BTR-AOC14-SD01 was utilized for the laboratory replicate analysis. The RPD between sample results for the indicated target analytes marginally exceeded the established QC limits as follows:

Analyte	RPD	QC limits
Lead	36%	≤35%
Chromium	40%	≤35%
Copper	40%	≤35%

No adverse effects are expected on data quality due to the above noted deviations.

## H. Field Duplicate Analysis:

 $\mathrm{H.1}$  There were no field duplicate analyses included in the project documentation.

#### I. <u>Matrix Spike Analyses</u>:

I.1 Sample number BTR-AOC14-SD01 was utilized for the matrix spike (MS) analysis. The spike recovery for magnesium was 209%, exceeding the advisory QC criteria of 75-125%. Due to the above noted deficiency in MS analysis, the detected results for

magnesium in the associated samples are considered as estimates (J) and usable for limited purposes only (see modified sample data sheets). A post-digestion spike recovery analysis was performed on August 29, 1993 and the magnesium recovery result for the reanalysis was within the advisory QC limits.

The MS recoveries for aluminum, calcium, and iron exceeded the upper QC limit of 125%. However, the sample concentration exceeds the spike concentration by a factor of four or more for the above noted target analytes. Therefore, data are not qualified on the basis of these high MS recoveries.

I.2 All other QC criteria were met for the MS analysis.

## J. Quantitation and Identification:

J.l No problems were observed with analyte quantitation and identification in project sample analyses.

## K. Conclusion:

K.l Due to the above noted performance deficiency in matrix spike analyses, select data are considered estimates and usable for limited purposes. All other data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM: DEW-Line RI/FS (ICF Project No. 41096-412-02)

LABORATORY: Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER: ANALYSIS:

Traci Grizzle, ICF Kaiser Engineers Total Thallium by USEPA Method 7841

MATRIX:

Soil

DATE:

December 29, 1993

#### I. INTRODUCTION:

Commercial Testing & Engineering Co. (Anchorage, AK) received two (2) soil samples for total thallium analysis by USEPA Method 7841 on August 24. 1993. The samples were digested on August 27, 1993 and analyzed for thallium by atomic absorption, furnace technique on August 28, 1993.

The ICF site identification numbers and corresponding Commercial Testing & Engineering Co. laboratory sample identification numbers are listed below.

ICF Site	<u>No.</u>	Lab	Sample	No.

BTR-AOC14-SD01 4305-1 BTR-AOC14-SO2 4305-6

The analytical results with qualifications are presented on modified sample data sheets included in the report appendix. Definitions of data qualifiers are provided in Table 1B.

This report was prepared according to the USEPA draft document "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses," October 1989 and SW-846 USEPA Method 7841.

## II. VALIDITY and COMMENTS:

## A. <u>Technical Holding Times</u>:

A.1 Technical holding time QC criteria were met for all project sample analyses.

- B. <u>Initial Calibration</u>:
  - B.1 Initial calibration QC criteria were met for all project sample analyses.
- C. Continuing Calibrations:
  - C.1 Continuing calibration QC criteria were met for all project sample analyses.
- D. <u>Laboratory Blanks</u>:
  - D.1 The target analyte was not detected in the method blanks at a concentration above the Practical Quantitation Limit (PQL) and the results are considered acceptable.
- E. <u>Field Blanks</u>:
  - E.1 There were no field blank analyses included in the project documentation.
- F. Laboratory Control Sample Analysis:
  - F.1 All laboratory control sample QC criteria were met.
- G. <u>Laboratory Replicate Analysis</u>:
  - G.1 Sample number BTR-AOC14-SDO1 was utilized for the laboratory replicate analysis. The results of the laboratory replicate analysis met all applicable QC criteria and the results are considered acceptable.
- H. Field Duplicate Analysis:
  - H.1 There was no field duplicate analysis included in the project documentation.
- I. Matrix Spike Analysis:
  - I.l Sample number BTR-AOC14-SDO1 was utilized for the matrix spike (MS) analysis. The MS recovery met all applicable QC criteria and the results are considered acceptable.
- J. Quantitation:
  - J.1 No problems were observed with analyte quantitation in project sample analyses.
- K. Conclusion:
  - K.1 All data are considered valid and usable for all purposes.

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#### **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Keith Strout

ANALYSIS:

Volatile Petroleum Hydrocarbons by USEPA Method 8015M

MATRIX:

Water & Soil

DATE: January 21, 1994

## I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received four (4) water samples and four (4) soil samples for Volatile Petroleum Hydrocarbons (VPH) analysis by USEPA Method 8015M (modified) on August 19 and 20, 1993. The samples were analyzed for VPH on August 20 through 27, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-SD08-SEB	93.4203-08	Water
BTR-BKGD-S02	93.4203-06	Soil
BTR-BKGD-SD01	93.4199-01	Soil
BTR-BKGD-SW01	93.4199-06	Water
BTR-SS13-S02	93.4216-10	Soil
BTR-SS13-SD01	93.4216-05	Soil
BTR-SS13-SEB2	93.4215-06	Water
BTR-SS13-WEB2	93.4215-07	Water

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-SEB, BTR-SS13-SEB2, and BTR-SS13-WEB2 were designated as "equipment blanks."

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8015M. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets (IRPIMS) submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared according to the USEPA draft document "National Functional Guidelines for Organic Data Review" (December 1990), USEPA Method 8015M and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

- A. Technical Holding Times:
  - A.1 Technical holding time QC criteria were met for all project sample analyses.
- B. <u>Initial Calibration</u>:
  - B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.
- C. Continuing Calibrations:
  - C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.
- D. <u>Laboratory Blanks:</u>
  - D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.
- E. Field Blanks:
  - E.1 The target analyte was not detected in the equipment blanks at a concentration above the PQL and the results are considered acceptable.
- F. Laboratory Control Sample Analysis:
  - F.1 The laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.
- G. Field Duplicate Analysis:
  - G.1 No field duplicate analysis is included in the project documentation.
- H. Surrogate Recoveries:
  - H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.
- I. Matrix Spike/Matrix Spike Duplicate Analyses:
  - I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with these samples met all applicable QC criteria and the results are considered acceptable.
- J. Internal Standards:
  - J.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

- K. Quantitation and Identification:
  - K.1 No other problems were observed with sample quantitation and identification in project sample analysis.
- L. <u>Conclusion:</u>
  - L.1 All data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Cynthia E. Schlag

ANALYSIS:

Volatile Petroleum Hydrocarbons by USEPA Method 8015M

MATRIX:

Soil

DATE:

January 21, 1994

### I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received two (2) soil samples for Volatile Petroleum Hydrocarbons (VPH) analysis by USEPA Method 8015M (modified) on August 16 and 18. 1993. The samples were analyzed for VPH by gas chromatography with flame ionization detection on August 21, 24, and 25, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.

Lab Sample No.

BTR-SD08-SD01

93.4198-08

BTR-LF03-SD07

93.4219-10

There were no QC sample designations included in project documentation.

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8015M. According to the laboratory, all soil samples were extracted in methanol before analysis as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets (IRPIMS) submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared according to the USEPA draft document *National Functional Guidelines for Organic Data Review* (December 1990), USEPA Method 8015M and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

- A. <u>Technical Holding Times</u>:
  - A.1 Technical holding time QC criteria were met for all project sample analyses.
- B. Initial Calibration:
  - B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.
- C. Continuing Calibrations:
  - C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.
- D. Laboratory Blanks:
  - D.1 The target analyte was not detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.
- E. Field Blanks:
  - E.1 No field blank analysis is included in project documentation.
- F. <u>Laboratory Control Sample Analysis:</u>
  - F.1 The laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.
- G. Field Duplicate Analysis:
  - G.1 No field duplicate analysis is included in the project documentation.
- H. Surrogate Recoveries:
  - H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.
- I. Matrix Spike/Matrix Spike Duplicate Analyses:
  - I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses associated with these samples met all applicable QC criteria and the results are considered acceptable.
- J. Internal Standards:
  - J.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.
- K. Quantitation and Identification:
  - K.1 No other problems were observed with sample quantitation and identification in project sample analysis.
- L. Conclusion:
  - L.1 All data are considered valid and usable for all purposes.

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#### DATA VALIDATION REPORT

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Keith Strout

ANALYSIS:

BTEX Compounds by USEPA Method 8020

MATRIX:

Water & Soil

DATE:

January 19, 1994 (revised March 4, 1994)

## I. INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received five (5) water samples and four (4) soil samples for BTEX (benzene, toluene, ethylbenzene, and xylenes) analysis by USEPA Method 8020 on August 19 and August 20, 1993. The samples were analyzed for BTEX on August 20, 1993, through August 24, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.	Lab Sample No.	<u>Matrix</u>
BTR-BKGD-SD01	93.4199-01	SOIL
BTR-BKGD-SW01	93.4199-06	WATER
BTR-SD08-TB02	93.4199-13	WATER
BTR-SS13-S02	93.4216-10	SOIL
BTR-SS13-SD01	93.4216-05	SOIL
BTR-SD08-SEB	93.4203-08	WATER
BTR-BKGD-S02	93.4203-06	SOIL
BTR-SS13-SEB2	93.4215-06	WATER
BTR-SS13-WEB2	93.4215-07	WATER

The following QC sample designations were included in project documentation: sample numbers BTR-SD08-SEB. BTR-SS13-SEB2, and BTR-SS13-WEB2 are designated as "equipment blanks"; and BTR-SD08-TB02 is designated as a "trip blank."

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8020. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", December, 1990 and USEPA Method 8020 and the Project Sampling and Analysis Plan.

## II. VALIDITY & COMMENTS:

- A. Technical Holding Times:
  - A.1 The technical holding time QC criteria were met for all project samples.
- B. <u>Initial Calibration</u>:
  - B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.
- C. Continuing Calibration:
  - C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.
- D. Laboratory Blanks:
  - D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.
- E. Field Blanks:
  - E.1 Target analyte toluene was detected in soil equipment blank BTR-SS13-SEB2 at a concentration of 0.0032 mg/L. This compound was not detected in the laboratory blank or in the associated soil sample, therefore no data are qualified due to field blank contamination.
- F. Field Duplicate Analysis:
  - F.1 No field duplicate analysis is included in the project documentation.
- G. <u>Laboratory Control Sample Analysis:</u>
  - G.1 The laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.
- H. Surrogate Recoveries:
  - H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.
- I. Matrix Spike/Matrix Spike Duplicate Analyses:
  - 1.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses met all QC criteria and are considered acceptable.
- J. <u>Internal Standards</u>:
  - J.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

## K. Quantitation & Identification:

K.1 Due to analyte identification problems, the following analytes are considered to be presumptively present (N) and the detected results are usable for limited purposes only (see modified sample data sheets):

- toluene in sample numbers BTR-SS13-S02 and BTR-SS13-SEB2
- ethylbenzene in sample numbers BTR-SS13-SD01 and BTR-SS13-S02
- p&m-xylene in sample numbers BTR-SS13-SD01 and BTR-SS13-S02
- o-xylene in sample numbers BTR-SS13-SD-1 and BTR-SS13-S02

The laboratory did not confirm all detected results by using a secondary column or GC/MS analysis. The results for the smaples listed above are considered to be tentatively identified and qualitatively questionable.

K.2 No other problems were observed with sample quantitation and identification in project sample analysis.

## L. Conclusion:

- L.1 Due to the lack of confirmation, select data are considerd to be tentatively identified and qualitatively questionable.
- L.2 All other data are considered valid and usable for all purposes.

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#### **DATA VALIDATION REPORT**

PROGRAM:

Elmendorf AFB/Barter Island RI/FS (ICF Project No.41096-412-02)

LABORATORY:

Commercial Testing & Engineering Co. (Anchorage, AK)

REVIEWER:

Cynthia E. Schlag

**ANALYSIS:** 

BTEX Compounds by USEPA Method 8020

MATRIX:

Soil

DATE:

1.

January 21, 1994

#### INTRODUCTION:

Commercial Testing & Engineering Co. (CT&E) (Anchorage, AK) received two (2) soil samples for BTEX (benzene, toluene, ethylbenzene, and xylenes) analysis by USEPA Method 8020 on August 16 and 18, 1993. The samples were analyzed for by gas chromatography with photo-ionization detection BTEX on August 21, 24, and 25, 1993.

The ICF site identification numbers and corresponding CT&E laboratory sample identification numbers are listed below.

ICF Site No.

Lab Sample No.

BTR-SD08-SD01

93,4198-08

BTR-LF03-SD07

93,4219-10

There were no QC sample designations included in project documentation.

It should be noted, that all quantitation limits reported by the laboratory for project soil samples were higher than those specified in the Project Sampling and Analysis Plan for USEPA Method 8020. According to the laboratory, all soil samples were extracted in methanol before analysis, as required by State of Alaska guidelines. It is the opinion of the reviewer that the quality of the data was not affected.

The analytical results for project soil samples were reported with an adjustment for moisture content.

The analytical results with qualifications are presented on modified sample data sheets submitted by the laboratory. Definitions of the data qualifiers are listed in Table 1B. This report was prepared in accordance with the USEPA draft document "National Functional Guidelines for Organic Data Review", (December 1990) USEPA Method 8020 and the Project Sampling and Analysis Plan.

### II. VALIDITY & COMMENTS:

A. <u>Technical Holding Times:</u>

A.1 The technical holding time QC criteria were met for all project samples.

B. Initial Calibration:

B.1 All QC criteria for the initial calibration were met and the results are considered acceptable.

C. Continuing Calibration:

C.1 All QC criteria for the continuing calibration were met and the results are considered acceptable.

D. Laboratory Blanks:

D.1 No target analytes were detected in the method blanks at a concentration above the practical quantitation limit (PQL) and the results are considered acceptable.

E. Field Blanks:

E.1 No field blank analysis is included in the project documentation.

F. Field Duplicate Analysis:

F.1 No field duplicate analysis is included in the project documentation.

G. <u>Laboratory Control Sample Analysis:</u>

G.1 The laboratory control sample QC criteria were met for all "blank spike" analyses and the results are considered acceptable.

H. Surrogate Recoveries:

H.1 All surrogate recoveries met applicable QC criteria and the results are considered acceptable.

I. Matrix Spike/Matrix Spike Duplicate Analyses:

I.1 The matrix spike (MS) and matrix spike duplicate (MSD) analyses met all QC criteria and are considered acceptable.

J. Internal Standards:

J.1 Internal standard areas for all sample analyses were within specified QC criteria and the results are considered acceptable.

K. Quantitation & Identification:

K.1 No problems were observed with sample quantitation and identification in project sample analysis.

L. Conclusion:

L.1 All data are considered valid and usable for all purposes.